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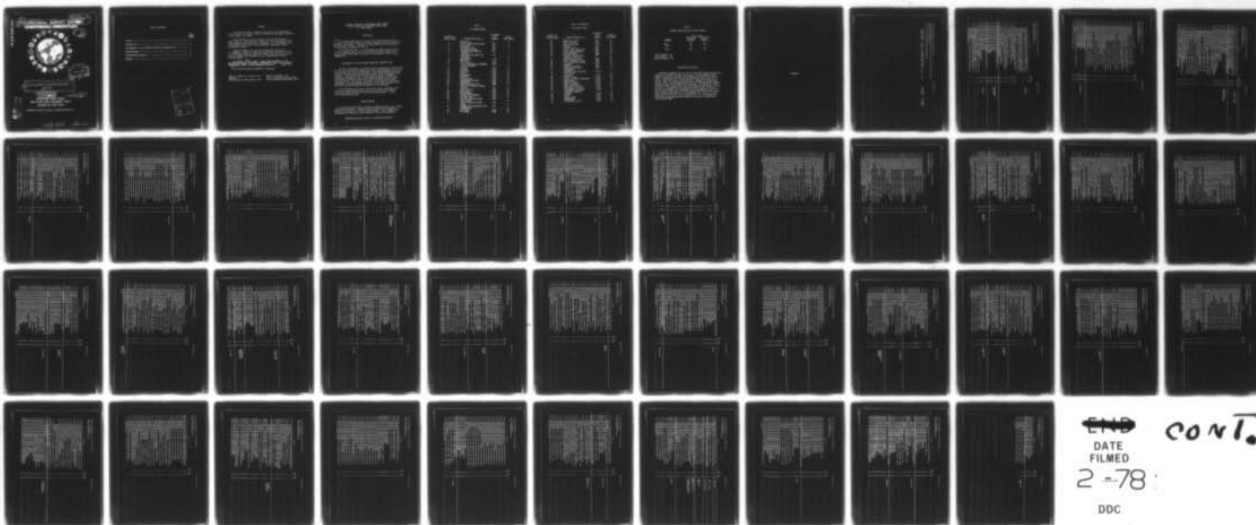
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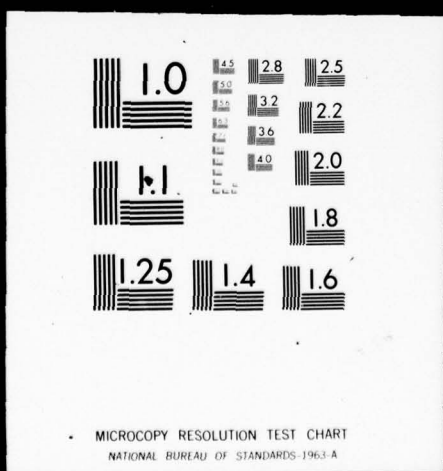


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OCCUPATIONAL SURVEY REPORT.

ELECTRONIC PRINCIPLES



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MISSILE PNEUDRAULIC REPAIRMAN CAREER LADDER
AFSC 44250 .

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OCCUPATIONAL SURVEY BRANCH
USAF OCCUPATIONAL MEASUREMENT CENTER
LACKLAND AFB TEXAS 78236

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PREFACE

This report presents a summary of the results of a detailed Air Force Electronic Principles Survey of the Missile Pneudraulic Repairman Career Ladder, AFSC 44250.

The Electronic Principles Inventory (EPI) was developed by Major Thomas J. O'Connor and Mr. Hendrick W. Ruck and the survey data were analyzed by Major William A. Tamashunas. All are members of the Occupational Survey Branch, USAF Occupational Measurement Center, Lackland AFB, Texas.

Computer programs for analyzing the data were designed by Dr. Raymond E. Christal, Occupational and Manpower Research Division, Air Force Human Resources Laboratory (AFHRL), and were written by the Project Analysis and Programming Branch, Computational Sciences Division, AFHRL.

Distribution of this report is made upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Survey Branch (OMY), Lackland AFB, Texas 78236.

This report has been reviewed and is approved.

JAMES A. TURNER, JR., Colonel, USAF
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USAF Occupational Measurement Center

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ELECTRONIC PRINCIPLES OCCUPATIONAL SURVEY REPORT
MISSILE PNEUDRAULIC REPAIRMAN CAREER LADDER
AFSC 44250

INTRODUCTION

→ This report summarizes the results of the administration of the Electronic Principles Inventory to airmen assigned as Missile Pneudraulic Repairman (AFSC 44250). The data for this report were collected during the period April through June 1977. ↵

This report describes: (1) development and administration of the survey instrument; and (2) electronic principles used by DAFSC 5-skill level personnel both CONUS and overseas and assigned to selected major commands. ↵

DEVELOPMENT OF THE ELECTRONIC PRINCIPLES INVENTORY (EPI)

The EPI was developed by personnel from the Occupational Survey Branch who were well qualified in theoretical physics and electronics, as well as in task analysis and survey development. Over 300 maintenance personnel from SAC, TAC, ADC, MAC, and AFCS participated in the development of the inventory. Representing the five ATC training centers, electronics experts who averaged 12 years of maintenance experience and four years of electronic principles instruction experience spent several weeks refining the EPI. In addition, personnel at the Electrical Engineering Department of the USAF Academy and the Air Force Human Resources Laboratory were consulted during the development of the inventory.

The final version of the EPI used in this survey contained 1,257 items in 62 subject matter areas covering all electronic principles training given at the five ATC technical training centers. Table 1 lists the 62 subject areas.

ADMINISTRATION

The Electronic Principles Inventory was administered by mail to AFSC 44250 airmen worldwide. Responses from 33 individuals represented 70 percent of the total of all AFSC 44250 personnel. Table 2 shows the percentage distribution by major command of the survey incumbents.

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TABLE 1
EPI SUBJECT AREAS

| <u>SEQUENCE OF SUBJECT AREAS</u> | <u>SUBJECT AREA TITLE</u> | <u>BEGINNING ITEM NUMBER</u> | <u>GPSUM PAGE NUMBER</u> |
|--------------------------------------|---|--------------------------------------|------------------------------|
| 1 | MATHEMATICS | A1 | 2 |
| 2 | DIRECT CURRENT AND VOLTAGE | A15 | 2 |
| 3 | RESISTANCE | A24 | 2 |
| 4 | MULTIMETER USES | B52 | 3 |
| 5 | ALTERNATING CURRENT | B61 | 4 |
| 6 | INDUCTORS AND INDUCTIVE REACTANCE | B67 | 4 |
| 7 | CAPACITORS AND CAPACITIVE REACTANCE | C92 | 5 |
| 8 | TRANSFORMERS | C128 | 6 |
| 9 | MAGNETISM | C171 | 7 |
| 10 | RCL CIRCUITS | D185 | 8 |
| 11 | SERIES AND PARALLEL RESONANCE (TIME CONSTANTS) | D229 | 10 |
| 12 | FILTERS | D239 | 10 |
| 13 | COUPLING | E261 | 11 |
| 14 | SOLDERING | E273 | 11 |
| 15 | RELAYS | E295 | 12 |
| 16 | MICROPHONES | F314 | 12 |
| 17 | SPEAKERS | F327 | 13 |
| 18 | OSCILLOSCOPES | F342 | 13 |
| 19 | SEMICONDUCTOR DIODES | G354 | 13 |
| 20 | TRANSISTORS | G404 | 15 |
| 21 | TRANSISTOR AMPLIFIERS | G428 | 16 |
| 22 | SOLID-STATE SPECIAL PURPOSE DEVICES | H477 | 19 |
| 23 | POWER SUPPLIES | H483 | 19 |
| 24 | OSCILLATORS | H512 | 19 |
| 25 | MULTIVIBRATORS | I539 | 20 |
| 26 | LIMITERS AND CLAMPERS | I555 | 21 |
| 27 | ELECTRON TUBES | I565 | 21 |
| 28 | ELECTRON TUBE AMPLIFIERS AND CIRCUITS | J609 | 22 |
| 29 | SPECIAL PURPOSE ELECTRON TUBES | J616 | 23 |
| 30 | HETERODYNING, MODULATION, AND DEMODULATION | J632 | 23 |
| 31 | AM SYSTEMS | K638 | 23 |
| 32 | FM SYSTEMS | K666 | 24 |

TABLE 1 (CONTINUED)

EPI SUBJECT AREAS

| <u>SEQUENCE OF SUBJECT AREAS</u> | <u>SUBJECT AREA TITLE</u> | <u>BEGINNING ITEM NUMBER</u> | <u>GPSUM PAGE NUMBER</u> |
|--------------------------------------|---|--------------------------------------|------------------------------|
| 33 | NUMBERING SYSTEMS | K685 | 25 |
| 34 | LOGIC FUNCTIONS | L695 | 25 |
| 35 | BOOLEAN EQUATIONS | L708 | 26 |
| 36 | COUNTERS | L733 | 27 |
| 37 | TIMING CIRCUITS | M757 | 27 |
| 38 | USE OF SIGNAL GENERATORS | M769 | 28 |
| 39 | MOTORS AND GENERATORS | M779 | 28 |
| 40 | METER MOVEMENTS | N808 | 29 |
| 41 | SATURABLE REACTORS AND MAGNETIC AMPLIFIERS | N818 | 29 |
| 42 | WAVESHAPING CIRCUITS | N834 | 30 |
| 43 | SINGLE SIDEBAND SYSTEMS | O845 | 30 |
| 44 | PULSE MODULATION SYSTEMS | O875 | 31 |
| 45 | ANTENNAS | O914 | 32 |
| 46 | TRANSMISSION LINES | P953 | 34 |
| 47 | WAVEGUIDES AND CAVITY RESONATORS | P984 | 35 |
| 48 | MICROWAVE AMPLIFIERS AND OSCILLATORS | P1034 | 37 |
| 49 | REGISTERS | Q1110 | 39 |
| 50 | STORAGE DEVICES | Q1117 | 40 |
| 51 | DIGITAL TO ANALOG CONVERTERS | Q1126 | 40 |
| 52 | PHANTASTRONS | Q1140 | 41 |
| 53 | SCHMITT TRIGGERS | R1141 | 41 |
| 54 | CABLE FABRICATION | R1144 | 41 |
| 55 | INPUT/OUTPUT DEVICES | S1146 | 41 |
| 56 | PHOTO SENSITIVE DEVICES | S1149 | 41 |
| 57 | SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) | S1150 | 41 |
| 58 | INFRARED | T1159 | 41 |
| 59 | LASERS | T1186 | 42 |
| 60 | DISPLAY TUBES | T1220 | 43 |
| 61 | PROGRAMMING | U1234 | 43 |
| 62 | DB AND POWER RATIOS | U1255 | 44 |

TABLE 2
COMMAND REPRESENTATION OF SURVEY SAMPLE

| <u>COMMAND</u> | <u>AFSC 44250</u> | |
|----------------|--------------------------------|------------------------------|
| | <u>PERCENT OF ASSIGNED</u> | <u>PERCENT OF SAMPLE</u> |
| SAC | 96 | 100 |
| OTHER | <u>4</u> | <u>0</u> |
| TOTAL | 100 | 100 |

Total Assigned - 47
Total Sampled - 33
Percent Sampled - 70%

PRESENTATION OF RESULTS

Personnel responded "yes" or "no" to the 1,257 electronic principles questions as related to their present job. A Group Summary (GPSUM) computer printout is provided in the Appendix portion of this report. Page 1 of the GPSUM lists the two selected groups identified for this report. Pages 2-44 show the percentage of incumbents responding to the EPI items. The computer program results display the percent members answering "yes" to the subject area questions. The reader can locate a specific subject area by referring to the Appendix page number as listed in Table 1. For example, the Transformers area results are given on page 6 of the GPSUM. The percentage of survey respondents indicating use of specific electronic principles ranged from high in areas such as Direct Current and Voltage (p. 2) and Antennas (pp. 32-33) to low in areas such as Filters (p. 10) and Coupling (p. 11). Additional AFSC 442X0 data can be obtained upon request to the Chief, Occupational Survey Branch (OMY).

APPENDIX

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

GPSUM4 PAGE 1

TABULATION OF ELECTRONIC PRINCIPLES UTILIZATION DATA FOR SELECTED GROUPS
IN THE 44250 CAREER FIELD.

REPORTS ON THE FOLLOWING GROUPS WERE REQUESTED

GROUP IDENTITY = SPC076 ALL AIRMEN DAFSC 44250
GROUP IDENTITY = SPC077 ALL AIRMEN DAFSC 44250 ASSIGNED TO SAC

CONTAINING 23 MEMBERS.
CONTAINING 33 MEMBERS.

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC
076 077

| Task ID | Description | SPC 076 | SPC 077 | Category |
|---------|---|---------|---------|----------------------------|
| 1 | A1-01 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO AMPLIFY OR ATTENUATE VOLTAGE, RESISTANCE, ETC., BY POWERS OF 10. | 27 | 27 | MATHEMATICS |
| 2 | A1-02 DO YOU USE PUBLICATIONS, SUCH AS A TECHNICAL ORDERS OR MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU TO MULTIPLY OR DIVIDE BY A POWER OF 10 BEFORE YOU CAN APPLY THE INFORMATION FROM THE PUBLICATION IN A USEFUL WAY ON THE JOB. | 27 | 27 | |
| 3 | A1-03 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS. | 36 | 36 | |
| 4 | A1-04 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY. | 3 | 3 | |
| 5 | A1-05 DO YOU SOLVE FOR UNKNOWN QUANTITIES. | 15 | 15 | |
| 6 | A1-06 DO YOU CONVERT NUMBERS TO LOGARITHMS. | 0 | 0 | |
| 7 | A1-07 DO YOU USE LOGARITHM TABLES IN ANY TYPE OF CALCULATIONS. | 0 | 0 | |
| 8 | A1-08 DO YOU SOLVE QUADRATIC EQUATIONS. | 3 | 3 | |
| 9 | A1-09 DO YOU USE THE NATURAL SYSTEM OF LOGARITHMS. | 0 | 0 | |
| 10 | A1-10 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES. | 0 | 0 | |
| 11 | A1-11 DO YOU WORK WITH TRIGONOMETRIC FUNCTIONS SUCH AS SINE, COSINE, OR TANGENT. | 0 | 0 | |
| 12 | A1-12 DO YOU DETERMINE AREAS OF PLANE FIGURES. | 3 | 3 | |
| 13 | A1-13 DO YOU SOLVE OR USE SIMULTANEOUS EQUATIONS. | 0 | 0 | |
| 14 | A1-14 DO YOU SOLVE OR USE PROPORTIONS. | 0 | 0 | |
| 15 | A2-01 DO YOU USE THE TERM VOLTAGE OR VOLT (V). | 91 | 91 | |
| 16 | A2-02 DO YOU USE THE TERM ELECTROMOTIVE FORCE (EMF). | 0 | 0 | |
| 17 | A2-03 DO YOU USE THE TERM OHM. | 91 | 91 | DIRECT CURRENT AND VOLTAGE |
| 18 | A2-04 DO YOU USE THE TERM ION. | 0 | 0 | |
| 19 | A2-05 DO YOU USE THE TERM DYNE. | 0 | 0 | |
| 20 | A2-06 DO YOU USE THE TERM AMPERE. | 39 | 39 | |
| 21 | A2-07 DO YOU USE THE TERM NEUTRON. | 0 | 0 | |
| 22 | A2-08 DO YOU USE THE TERM COULOMB. | 0 | 0 | |
| 23 | A2-09 DO YOU USE THE TERM PROTON. | 0 | 0 | |
| 24 | A3-01 DO YOU WORK WITH RESISTORS IN YOUR PRESENT JOB. | 6 | 6 | |
| 25 | A3-02 DO YOU INSPECT RESISTORS. | 0 | 0 | |
| 26 | A3-03 DO YOU CLEAN RESISTORS. | 0 | 0 | RESISTANCE |
| 27 | A3-04 DO YOU ADJUST RESISTORS. | 0 | 0 | |
| 28 | A3-05 DO YOU CHECK OHMIC VALUE OR RESISTORS. | 3 | 3 | |
| 29 | A3-06 DO YOU REMOVE OR REPLACE RESISTORS. | 0 | 0 | |
| 30 | A3-07 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR RESISTORS ON ANY TASKS YOU PERFORM. | 0 | 0 | |
| 31 | A3-08 DO YOU USE OR REFER TO RESISTOR SYMBOLS SUCH AS FIXED RESISTOR SYMBOLS OR TAPPED RESISTOR SYMBOLS. | 0 | 0 | |
| 32 | A3-09 DO YOU IDENTIFY OR CLASSIFY THE RESISTORS YOU WORK WITH AS CARBON, FIXED WIRE, SLIDE TAP, RHEOSTAT, OR POTENTIOMETER. | 0 | 0 | |
| 33 | A3-10 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE OHMIC VALUE OF RESISTANCE. | 3 | 3 | |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS
TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

GPSUM4 PAGE 3

DY-TSM

SPC SPC
076 077

| | | | |
|---|----|----|-----------------|
| A 34 A3-11 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE TOLERANCE. | 3 | 3 | |
| A 35 A3-12 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE FAILURE RATE. | 0 | 0 | |
| A 36 A3-13 DO YOU MAKE DECISIONS IN WHICH YOU MUST DETERMINE HOW TWO OR MORE BATTERIES MUST BE CONNECTED TOGETHER TO ACHIEVE A SPECIFIC VOLTAGE. THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES | 0 | 0 | |
| A 37 A3-14 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES | 9 | 9 | |
| A 38 A3-15 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES RESISTIVE CIRCUITS. | 3 | 3 | |
| A 39 A3-16 DO YOU CALCULATE TOTAL CURRENT FOR SERIES RESISTIVE CIRCUITS. | 3 | 3 | |
| A 40 A3-17 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES RESISTIVE CIRCUITS. | 0 | 0 | |
| A 41 A3-18 DO YOU CALCULATE POWER DISSIPATION FOR SERIES RESISTIVE CIRCUITS. | 0 | 0 | |
| A 42 A3-19 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES PARALLEL RESISTIVE CIRCUITS. | 3 | 3 | |
| A 43 A3-20 DO YOU CALCULATE TOTAL CURRENT FOR SERIES PARALLEL RESISTIVE CIRCUITS. | 3 | 3 | |
| A 44 A3-21 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES PARALLEL RESISTIVE CIRCUITS. | 0 | 0 | |
| A 45 A3-22 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR SERIES PARALLEL RESISTIVE CIRCUITS. | 0 | 0 | |
| A 46 A3-23 DO YOU CALCULATE POWER DISSIPATION FOR SERIES PARALLEL RESISTIVE CIRCUITS. | 0 | 0 | |
| A 47 A3-24 DO YOU CALCULATE TOTAL RESISTANCE FOR PARALLEL RESISTIVE CIRCUITS. | 3 | 3 | |
| A 48 A3-25 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RESISTIVE CIRCUITS. | 3 | 3 | |
| A 49 A3-26 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR PARALLEL RESISTIVE CIRCUITS. | 0 | 0 | |
| A 50 A3-27 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR PARALLEL RESISTIVE CIRCUITS. | 0 | 0 | |
| A 51 A3-28 DO YOU CALCULATE POWER DISSIPATION FOR PARALLEL RESISTIVE CIRCUITS. | 0 | 0 | |
| B 52 B1-01 DO YOU MEASURE RESISTANCE. | 64 | 64 | |
| B 53 B1-02 DO YOU REPAIR OHMMETERS. | 0 | 0 | |
| B 54 B1-03 DO YOU MEASURE VOLTAGE. | 76 | 76 | |
| B 55 B1-04 DO YOU REPAIR VOLTMETERS. | 0 | 0 | |
| B 56 B1-05 DO YOU REPAIR AMMETERS. | 0 | 0 | |
| B 57 B1-06 DO YOU MEASURE CURRENT. | 27 | 27 | MULTIMETER USES |
| B 58 B1-07 DO YOU USE MULTIMETERS. | 76 | 76 | |
| B 59 B1-08 DO YOU DIRECTLY USE A QUANTITY OF CHARGE CALLED A COULOMB. | 0 | 0 | |
| B 60 B1-09 DO YOU READ SCHEMATICS. | 82 | 82 | |

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSM

SPC SPC
076 077

| | 3 | 3 | 3 | ALTERNATING CURRENT |
|---|----|----|---|-----------------------------------|
| B 61 B2-01 DO YOU USE OR REFER TO THE TERM EFFECTIVE VOLTAGE (RMS)? | | | | |
| B 62 B2-02 DO YOU USE OR REFER TO THE TERM PEAK TO PEAK VOLTAGE. | 3 | 3 | | |
| B 63 B2-03 DO YOU USE OR REFER TO THE TERM AVERAGE VOLTAGE (DC). | 15 | 15 | | |
| B 64 B2-04 DO YOU USE OR REFER TO THE TERM WAVE LENGTH. | 0 | 0 | | |
| B 65 B2-05 DO YOU USE OR REFER TO THE TERM FREQUENCY. | 0 | 0 | | |
| B 66 B2-06 DO YOU USE OR REFER TO THE TERM INSTANTANEOUS VALUE. | 0 | 0 | | |
| B 67 B3-01 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING INDUCTORS, CHOKES, OR CHOKE COILS IN YOUR PRESENT JOB. | 0 | 0 | | INDUCTORS AND INDUCTIVE REACTANCE |
| B 68 B3-02 DO YOU INSPECT INDUCTORS. | 0 | 0 | | |
| B 69 B3-03 DO YOU CLEAN INDUCTORS. | 0 | 0 | | |
| B 70 B3-04 DO YOU ADJUST INDUCTORS. | 0 | 0 | | |
| B 71 B3-05 DO YOU REMOVE OR REPLACE INDUCTORS. | 0 | 0 | | |
| B 72 B3-06 DO YOU USE OR REFER TO INDUCTANCE. | 0 | 0 | | |
| B 73 B3-07 DO YOU USE OR REFER TO HENRIES. | 0 | 0 | | |
| B 74 B3-08 DO YOU USE OR REFER TO INDUCTIVE REACTANCE. | 0 | 0 | | |
| B 75 B3-09 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS. | 0 | 0 | | |
| B 76 B3-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS. | 0 | 0 | | |
| B 77 B3-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN INDUCTORS | 0 | 0 | | |
| B 78 B3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF TURNS OF THE COIL. | 0 | 0 | | |
| B 79 B3-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS SECTIONAL AREA OF THE CORE. | 0 | 0 | | |
| B 80 B3-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS LENGTH. | 0 | 0 | | |
| B 81 B3-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE PERMEABILITY OF THE CORE MATERIAL. | 0 | 0 | | |
| B 82 B3-16 DO YOU CALCULATE INDUCTANCE FOR PARTICULAR INDUCTORS USING FORMULAS. | 0 | 0 | | |
| B 83 B3-17 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTANCE IN SERIES. | 0 | 0 | | |
| B 84 B3-18 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN PARALLEL. | 0 | 0 | | |
| B 85 B3-19 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS IN SERIES-PARALLEL CIRCUITS. | 0 | 0 | | |
| B 86 B3-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LAGS VOLTAGE IN AC INDUCTOR CIRCUITS. | 0 | 0 | | |
| B 87 B3-21 DO YOU CALCULATE INDUCTIVE REACTANCE. | 0 | 0 | | |
| B 88 B3-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY. | 0 | 0 | | |
| B 89 B3-23 DO YOU WORK WITH POWER INDUCTORS. | 0 | 0 | | |
| B 90 B3-24 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS. | 0 | 0 | | |
| B 91 B3-25 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS. | 0 | 0 | | |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

GPSUM4 PAGE 6

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| | | DY-TSM | | SPC SPC | |
|--------------|---|---------|---|---------|---|
| | | C76 C77 | | | |
| CAPACITORS | | | | | |
| C 121 | C1-3L DO YOU WORK WITH ROTOR-STATOR (VARIABLE) CAPACITORS | 0 | 0 | 0 | 0 |
| C 122 | C1-3I DO YOU WORK WITH COMPRESSION (TRIMMER) CAPACITORS | 0 | 0 | 0 | 0 |
| C 123 | C1-32 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS | 0 | 0 | 0 | 0 |
| C 124 | C1-33 DO YOU WORK WITH PAPER (FIXED) CAPACITORS | 0 | 0 | 0 | 0 |
| C 125 | C1-34 DO YOU WORK WITH MICA (FIXED) CAPACITORS | 0 | 0 | 0 | 0 |
| C 126 | C1-35 DO YOU WORK WITH CERAMIC (FIXED) CAPACITORS | 0 | 0 | 0 | 0 |
| C 127 | C1-36 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF | 0 | 0 | 0 | 0 |
| TRANSFORMERS | | | | | |
| C 128 | C2-01 DO YOU WORK WITH TRANSFORMERS IN YOUR PRESENT JOB | 0 | 0 | 0 | 0 |
| C 129 | C2-02 DO YOU INSPECT TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 130 | C2-03 DO YOU CLEAN TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 131 | C2-04 DO YOU ADJUST TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 132 | C2-05 DO YOU TROUBLESHOOT TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 133 | C2-06 DO YOU REMOVE OR REPLACE COMPLETE TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 134 | C2-07 DO YOU REMOVE OR REPLACE TRANSFORMER PARTS, SUCH AS THE PRIMARY WINDING | 0 | 0 | 0 | 0 |
| C 135 | C2-08 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTION AND MUTUAL INDUCTANCE (M) | 0 | 0 | 0 | 0 |
| C 136 | C2-09 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M | 0 | 0 | 0 | 0 |
| C 137 | C2-10 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING WHEN WORKING WITH TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 138 | C2-11 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING CURRENT OR VOLTAGE RATIOS | 0 | 0 | 0 | 0 |
| C 139 | C2-12 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 140 | C2-13 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 141 | C2-14 DO YOU WORK WITH AUTOTRANSFORMERS | 0 | 0 | 0 | 0 |
| C 142 | C2-15 DO YOU WORK WITH POWER TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 143 | C2-16 DO YOU WORK WITH AUDIO TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 144 | C2-17 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 145 | C2-18 DO YOU WORK WITH DON'T REMEMBER WHAT TYPE OF TRANSFORMERS | 0 | 0 | 0 | 0 |
| C 146 | C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY MEASURING RESISTANCE | 0 | 0 | 0 | 0 |
| C 147 | C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING RESISTANCE | 0 | 0 | 0 | 0 |
| C 148 | C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY MEASURING OUTPUT VOLTAGES | 0 | 0 | 0 | 0 |
| C 149 | C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-DOWN TURNS RATIO | 0 | 0 | 0 | 0 |
| C 150 | C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP- DOWN TURNS RATIO | 0 | 0 | 0 | 0 |
| C 151 | C2-24 DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS FOR TRANSFORMERS | 0 | 0 | 0 | 0 |

PCT MARS RESPONDING 'YES' BY SELECTED GRPS

GPSUM4 PAGE 7

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-TSM

SPC SPC
076 077

C 152 C2-25 DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC SYMBOLS FOR TRANSFORMERS 0 0

C 153 C2-26 DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS 0 0

C 154 C2-27 DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR TRANSFORMERS 0 0

C 155 C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS 0 0

C 156 C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR TRANSFORMERS 0 0

C 157 C2-30 DO YOU REFER TO COMBINATIONS OF THE ABOVE SCHEMATIC SYMBOLS FOR TRANSFORMERS 0 0

C 158 C2-31 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING SCHEMATIC SYMBOLS 0 0

C 159 C2-32 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN TRANSFORMERS YOU WORK WITH 0 0

C 160 C2-33 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO FOR TRANSFORMERS 0 0

C 161 C2-34 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS USING TURNS RATIOS 0 0

C 162 C2-35 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS USING TURNS RATIOS 0 0

C 163 C2-36 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS USING TURNS RATIOS 0 0

C 164 C2-37 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE PHASE TRANSFORMERS 0 0

C 165 C2-38 DO YOU INSPECT THREE PHASE TRANSFORMERS 0 0

C 166 C2-39 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS 0 0

C 167 C2-40 DO YOU ADJUST THREE PHASE TRANSFORMERS 0 0

C 168 C2-41 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS 0 0

C 169 C2-42 DO YOU REMOVE OR REPLACE COMPLETE THREE PHASE TRANSFORMERS 0 0

C 170 C2-43 DO YOU REMOVE OR REPLACE THREE PHASE TRANSFORMER PARTS SUCH AS WINDINGS 0 0

C 171 C3-01 DO YOU USE OR REFER TO PERMANENT MAGNETS 3 3

C 172 C3-02 DO YOU USE OR REFER TO TEMPORARY MAGNETS 0 0

C 173 C3-03 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC MATERIALS 0 0

C 174 C3-04 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC MATERIALS 0 0

C 175 C3-05 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC MATERIALS 0 0

C 176 C3-06 DO YOU USE OR REFER TO RESIDUAL MAGNETISM 0 0

C 177 C3-07 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR FLUX 0 0

C 178 C3-08 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM 0 0

MAGNETISM

PCT MGRS RESPONDING *YES* BY SELECTED GRPS

GPSUM4 PAGE 8

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-ISK

SPC SPC
076 077

| | | | |
|---|----|----|----|
| C 179 C3-09 DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM | 0 | 0 | 0 |
| C 180 C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION | 0 | 0 | 0 |
| C 181 C3-11 DO YOU USE OR REFER TO FLUX DENSITY | 0 | 0 | 0 |
| C 182 C3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT FOR | 12 | 12 | 12 |
| MAGNETIC POLES, LIKE POLES REPEL AND UNLIKE POLES ATTRACT | | | |
| C 183 C3-13 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE | 3 | 3 | 3 |
| DIRECTION OF MAGNETIC FIELDS ABOUT STRAIGHT WIRES | | | |
| C 184 C3-14 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE NORTH | 0 | 0 | 0 |
| POLE OF A CURRENT CARRYING COIL | | | |
| D 185 D1-01 DO YOU WORK WITH RC, LR, RCL CIRCUITS IN YOUR | 0 | 0 | 0 |
| PRESENT JOB | | | |
| D 186 D1-02 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL | 0 | 0 | 0 |
| CIRCUITS | | | |
| D 187 D1-03 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN | 0 | 0 | 0 |
| WORKING WITH RCL CIRCUITS | | | |
| D 188 D1-04 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL | 0 | 0 | 0 |
| CIRCUITS | | | |
| D 189 D1-05 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL | 0 | 0 | 0 |
| CIRCUITS | | | |
| D 190 D1-06 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL | 0 | 0 | 0 |
| CIRCUITS | | | |
| D 191 D1-07 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL | 0 | 0 | 0 |
| CIRCUITS | | | |
| D 192 D1-08 DO YOU USE OR REFER TO TRUE POWER (PT) WHEN WORKING | 0 | 0 | 0 |
| WITH RCL CIRCUITS | | | |
| D 193 D1-09 DO YOU USE OR REFER TO MAXIMUM POWER (PM) WHEN | 0 | 0 | 0 |
| WORKING WITH RCL CIRCUITS | | | |
| D 194 D1-10 DO YOU USE OR REFER TO AVERAGE POWER (PAVE) WHEN | 0 | 0 | 0 |
| WORKING WITH RCL CIRCUITS | | | |
| D 195 D1-11 DO YOU USE OR REFER TO APPARENT POWER (PA) WHEN | 0 | 0 | 0 |
| WORKING WITH RCL CIRCUITS | | | |
| D 196 D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING | 0 | 0 | 0 |
| WITH RCL CIRCUITS | | | |
| D 197 D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN | 0 | 0 | 0 |
| WORKING WITH RCL CIRCUITS | | | |
| D 198 D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH | 0 | 0 | 0 |
| RCL CIRCUITS | | | |
| D 199 D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH | 0 | 0 | 0 |
| RCL CIRCUITS | | | |
| D 200 D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN | 0 | 0 | 0 |
| WORKING WITH RCL CIRCUITS | | | |
| D 201 D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN | 0 | 0 | 0 |
| WORKING WITH RCL CIRCUITS | | | |
| D 202 D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING | 0 | 0 | 0 |
| WITH RCL CIRCUITS | | | |
| D 203 D1-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH | 0 | 0 | 0 |
| RCL CIRCUITS | | | |

RCL CIRCUITS

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

GRSUM4 PAGE 9

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC
076 077

| | | |
|--|---|---|
| D 204 D1-2C DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING WITH RCL CIRCUITS | 0 | 0 |
| D 205 D1-21 DO YOU DETERMINE VALUES OF TRIGONOMETRIC FUNCTIONS USING FORMULAS | 0 | 0 |
| D 206 D1-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR DIAGRAMS FOR CIRCUITS | 0 | 0 |
| D 207 D1-23 DO YOU CALCULATE TOTAL IMPEDANCE FOR CAPACITIVE CIRCUITS | 0 | 0 |
| D 208 D1-24 DO YOU CALCULATE PHASE ANGLES BETWEEN IMPEDANCE AND RESISTANCE IN CAPACITIVE CIRCUITS | 0 | 0 |
| D 209 D1-25 DO YOU CALCULATE TOTAL IMPEDANCE FOR SERIES RCL CIRCUITS | 0 | 0 |
| D 210 D1-26 DO YOU CALCULATE IMPEDANCE ANGLES FOR SERIES RCL CIRCUITS | 0 | 0 |
| D 211 D1-27 DO YOU CALCULATE APPARENT POWER (PA) FOR SERIES RCL CIRCUITS | 0 | 0 |
| D 212 D1-28 DO YOU CALCULATE TRUE POWER (PT) FOR SERIES RCL CIRCUITS | 0 | 0 |
| D 213 D1-29 DO YOU CALCULATE POWER FACTORS (PF) FOR SERIES RCL CIRCUITS | 0 | 0 |
| D 214 D1-33 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RCL CIRCUITS | 0 | 0 |
| D 215 D1-31 DO YOU CALCULATE IMPEDANCE ANGLES FOR PARALLEL RCL CIRCUITS | 0 | 0 |
| D 216 D1-32 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING THE ASSUMED VOLTAGE METHOD | 0 | 0 |
| D 217 D1-33 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL CIRCUITS USING OHM'S LAW | 0 | 0 |
| D 218 D1-34 DO YOU CHECK CAPACITORS USING OHMMETERS | 0 | 0 |
| D 219 D1-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION | 0 | 0 |
| D 220 D1-36 DO YOU CHECK INDUCTORS USING OHMMETERS | 0 | 0 |
| D 221 D1-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION | 0 | 0 |
| D 222 D1-38 DO YOU USE OR REFER TO THE GENERAL RULE THAT $\theta = 0$, $PF = 1$, AND $PA = PT$ FOR RESONANT CIRCUITS | 0 | 0 |
| D 223 D1-39 DO YOU CALCULATE RESONANT FREQUENCIES FOR RCL CIRCUITS | 0 | 0 |
| D 224 D1-40 DO YOU USE OR REFER TO THE GENERAL RULE THAT IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT FREQUENCY FOR SERIES RCL CIRCUITS | 0 | 0 |
| D 225 D1-41 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT FREQUENCY FOR PARALLEL RCL CIRCUITS | 0 | 0 |
| D 226 D1-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF POWER POINTS ARE AT 70.7 PERCENT OF THE PEAK CURRENT VALUE | 0 | 0 |
| D 227 D1-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT BANDWIDTH IS INVERSELY PROPORTIONAL TO Q | 0 | 0 |
| D 228 D1-44 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE, CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE ANGLES FOR RCL CIRCUITS | 0 | 0 |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

GPSUM4 PAGE 10

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSM

SPC SPC
076 077

| | | | | | | |
|-------|-------|---|---|---|---|--|
| 0 229 | 02-01 | IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER TO SERIES OR PARALLEL RESONANT CIRCUITS OR TIME CONSTANTS | 0 | 0 | 0 | SERIES AND PARALLEL RESONANCE (TIME CONSTANTS) |
| 0 230 | 02-02 | DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS | 0 | 0 | 0 | |
| 0 231 | 02-03 | DO YOU WORK WITH, USE, OR REFER TO AVAILABLE VOLTAGE | 0 | 0 | 0 | |
| 0 232 | 03-04 | DO YOU WORK WITH, USE, OR REFER TO TRANSIENT INTERVALS | 0 | 0 | 0 | |
| 0 233 | 02-05 | DO YOU USE OR REFER TO THE GENERAL RULE THAT A CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE (5) TIME CONSTANTS (TC) | 0 | 0 | 0 | |
| 0 234 | 02-06 | DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS | 0 | 0 | 0 | |
| 0 235 | 02-07 | DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC TIME FOR RC OR LR CIRCUITS | 0 | 0 | 0 | |
| 0 236 | 02-08 | DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO REACH SPECIFIC VALUES FOR RC OR LR CIRCUITS | 0 | 0 | 0 | |
| 0 237 | 02-09 | DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND COMPONENT VOLTAGES TO REACH SPECIFIC VALUES IN SPECIFIC TIMES | 0 | 0 | 0 | |
| 0 238 | 02-10 | DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER FIVE (5) TIME CONSTANTS | 0 | 0 | 0 | |
| 0 239 | 03-01 | DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR PRESENT JOB | 0 | 0 | 0 | |
| 0 240 | 03-02 | DO YOU INSPECT FILTER CIRCUITS | 0 | 0 | 0 | FILTERS |
| 0 241 | 03-03 | DO YOU CLEAN FILTER CIRCUITS | 0 | 0 | 0 | |
| 0 242 | 03-04 | DO YOU ALIGN OR ADJUST FILTER CIRCUITS | 0 | 0 | 0 | |
| 0 243 | 03-05 | DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL | 0 | 0 | 0 | |
| 0 244 | 03-06 | DO YOU TROUBLESHOOT TO COMPONENT PARTS | 0 | 0 | 0 | |
| 0 245 | 03-07 | DO YOU REMOVE OR REPLACE THE COMPLETE FILTER CIRCUIT | 0 | 0 | 0 | |
| 0 246 | 03-08 | DO YOU REMOVE OR REPLACE FILTER CIRCUIT COMPONENT PARTS | 0 | 0 | 0 | |
| 0 247 | 03-09 | DO YOU WORK WITH LOW PASS FILTERS | 0 | 0 | 0 | |
| 0 248 | 03-10 | DO YOU WORK WITH HIGH PASS FILTERS | 0 | 0 | 0 | |
| 0 249 | 03-11 | DO YOU WORK WITH BANDPASS FILTERS | 0 | 0 | 0 | |
| 0 250 | 03-12 | DO YOU WORK WITH BAND-REJECT FILTERS | 0 | 0 | 0 | |
| 0 251 | 03-13 | DO YOU REMEMBER WHICH TYPE OF FILTER YOU WORK WITH | 0 | 0 | 0 | |
| 0 252 | 03-14 | DO YOU WORK WITH L-SECTION FILTER CONFIGURATION | 0 | 0 | 0 | |
| 0 253 | 03-15 | DO YOU WORK WITH T-SECTION FILTER CONFIGURATION | 0 | 0 | 0 | |
| 0 254 | 03-16 | DO YOU WORK WITH PI-SECTION FILTER CONFIGURATION | 0 | 0 | 0 | |
| 0 255 | 03-17 | DO YOU REMEMBER WHICH TYPE FILTER CONFIGURATION | 0 | 0 | 0 | |
| 0 256 | 03-18 | DO THE FILTERS YOU WORK WITH USE PARALLEL RESONANT CIRCUITS | 0 | 0 | 0 | |
| 0 257 | 03-19 | DO THE FILTERS YOU WORK WITH USE SERIES-PARALLEL CIRCUITS | 0 | 0 | 0 | |
| 0 258 | 03-20 | DO THE FILTERS YOU WORK WITH USE SERIES RESONANT CIRCUITS | 0 | 0 | 0 | |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

GPSUM4 PAGE 11

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-TSK

SPC SPC
076 077

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|-------|-------|--|---|---|---|-----------|
| D 259 | D3-21 | DO YOU REMEMBER WHICH TYPE OF BASIC CIRCUIT | 0 | 0 | 0 | |
| D 260 | D3-22 | DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC FILTERS | 0 | 0 | 0 | |
| E 261 | E1-01 | DO YOU WORK WITH COUPLING DEVICES IN YOUR PRESENT JOB | 0 | 0 | 0 | |
| E 262 | E1-02 | DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH RC COUPLING | 0 | 0 | 0 | COUPLING |
| E 263 | E1-03 | DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH IMPEDANCE COUPLING | 0 | 0 | 0 | |
| E 264 | E1-04 | DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH TRANSFORMER COUPLING | 0 | 0 | 0 | |
| E 265 | E1-05 | DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM RC COUPLING | 0 | 0 | 0 | |
| E 266 | E1-06 | DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM IMPEDANCE COUPLING | 0 | 0 | 0 | |
| E 267 | E1-07 | DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM TRANSFORMER COUPLING | 0 | 0 | 0 | |
| E 268 | E1-08 | DO YOU WORK WITH DIRECTLY COUPLED CIRCUITS | 0 | 0 | 0 | |
| E 269 | E1-09 | DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED CIRCUITS | 0 | 0 | 0 | |
| E 270 | E1-10 | DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED CIRCUITS | 0 | 0 | 0 | |
| E 271 | E1-11 | DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS | 0 | 0 | 0 | |
| E 272 | E1-12 | DO YOU REMEMBER WHICH TYPE OF COUPLING CIRCUITS | 0 | 0 | 0 | |
| E 273 | E2-01 | IN YOUR PRESENT JOB, DO YOU PERFORM SOLDERING TECHNIQUES OR INSPECT OR EVALUATE SOLDERED CONNECTIONS | 3 | 3 | 3 | SOLDERING |
| E 274 | E2-02 | DO YOU SELECT TYPE OF SOLDER TO USE | 0 | 0 | 0 | |
| E 275 | E2-03 | DO YOU ADD FLUX TO CONNECTIONS | 0 | 0 | 0 | |
| E 276 | E2-04 | DO YOU CLEAN CONNECTIONS USING SOLVENTS | 0 | 0 | 0 | |
| E 277 | E2-05 | DO YOU STRIP INSULATION FROM WIRES | 0 | 0 | 0 | |
| E 278 | E2-06 | DO YOU CONNECT OR DISCONNECT HEAT SINKS | 3 | 3 | 3 | |
| E 279 | E2-07 | DO YOU BEND OR SHAPE WIRES OR LEADS | 0 | 0 | 0 | |
| E 280 | E2-08 | DO YOU CUT WIRES | 0 | 0 | 0 | |
| E 281 | E2-09 | DO YOU FILE OR SHAPE SOLDERING IRON TIPS | 0 | 0 | 0 | |
| E 282 | E2-10 | DO YOU TIN SOLDERING IRON TIPS | 0 | 0 | 0 | |
| E 283 | E2-11 | DO YOU CLEAN SOLDERING IRON TIPS | 0 | 0 | 0 | |
| E 284 | E2-12 | DO YOU CLEAN ELECTRICAL SURFACES USING ERASERS | 0 | 0 | 0 | |
| E 285 | E2-13 | DO YOU TIN OR PRE-TIN CONDUCTORS | 0 | 0 | 0 | |
| E 286 | E2-14 | DO YOU INSPECT SOLDERED CONNECTIONS | 0 | 0 | 0 | |
| E 287 | E2-15 | DO YOU DESOLDER CONNECTIONS BY WICKING | 3 | 3 | 3 | |
| E 288 | E2-16 | DO YOU DESOLDER CONNECTIONS USING VACUUM DESOLDERING TOOLS | 3 | 3 | 3 | |
| E 289 | E2-17 | DO YOU CUT COMPONENT LEADS TO REMOVE COMPONENTS | 0 | 0 | 0 | |
| E 290 | E2-18 | DO YOU CRUSH COMPONENTS FOR REMOVAL | 3 | 3 | 3 | |

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-15K

SPC SPC
076 077

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|--|---|---|---|
| E 291 E2-19 DO YOU MAKE HARDWARE CONNECTIONS | 0 | 0 | 0 |
| E 292 E2-20 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS | 0 | 0 | 0 |
| E 293 E2-21 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR CAPACITORS ON PRINTED CIRCUIT BOARDS | 0 | 0 | 0 |
| E 294 E2-22 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE DIODES OR TRANSISTORS ON PRINTED CIRCUIT BOARDS | 0 | 0 | 0 |
| E 295 E3-01 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB | 6 | 6 | 6 |
| E 296 E3-02 DO YOU ADJUST RELAYS | 3 | 3 | 3 |
| E 297 E3-03 DO YOU CLEAN RELAYS | 0 | 0 | 0 |
| E 298 E3-04 DO YOU INSPECT RELAYS | 3 | 3 | 3 |
| E 299 E3-05 DO YOU REMOVE OR REPLACE COMPLETE RELAYS | 6 | 6 | 6 |
| E 300 E3-06 DO YOU REMOVE OR REPLACE PARTS OR RELAYS | 3 | 3 | 3 |
| E 301 E3-07 DO YOU TROUBLESHOOT RELAYS | 6 | 6 | 6 |
| E 302 E3-08 DO YOU STRAIGHTEN RELAY CONTACTS | 3 | 3 | 3 |
| E 303 E3-09 DO YOU PERFORM TASKS ON RELAY CONTACTS | 3 | 3 | 3 |
| E 304 E3-10 DO YOU PERFORM TASKS ON RELAY CORES | 0 | 0 | 0 |
| E 305 E3-11 DO YOU PERFORM TASKS ON RELAY COILS | 3 | 3 | 3 |
| E 306 E3-12 DO YOU PERFORM TASKS ON RELAY ARMATURES | 0 | 0 | 0 |
| E 307 E3-13 DO YOU PERFORM TASKS ON RELAY SPRINGS | 0 | 0 | 0 |
| E 308 E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY OPER (NO) SCHEMATIC SYMBOLS FOR RELAYS | 3 | 3 | 3 |
| E 309 E3-15 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS | 3 | 3 | 3 |
| E 310 E3-16 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW (SPDT) SCHEMATIC SYMBOLS FOR RELAYS | 3 | 3 | 3 |
| E 311 E3-17 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW (DPDT) SCHEMATIC SYMBOLS FOR RELAYS | 3 | 3 | 3 |
| E 312 E3-18 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS SCHEMATIC SYMBOLS FOR RELAYS | 3 | 3 | 3 |
| E 313 E3-19 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY MEASURING RESISTANCE | 3 | 3 | 3 |
| F 314 F1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH MICROPHONES | 6 | 6 | 6 |
| F 315 F1-02 DO YOU INSPECT MICROPHONES | 9 | 9 | 9 |
| F 316 F1-03 DO YOU CLEAN MICROPHONES | 9 | 9 | 9 |
| F 317 F1-04 DO YOU OPERATE MICROPHONES | 9 | 9 | 9 |
| F 318 F1-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT PARTS OR MICROPHONES | 9 | 9 | 9 |
| F 319 F1-06 DO YOU TROUBLESHOOT DOWN TO MICROPHONE PARTS | 0 | 0 | 0 |
| F 320 F1-07 DO YOU REMOVE OR REPLACE COMPLETE MICROPHONES | 0 | 0 | 0 |
| F 321 F1-08 DO YOU REMOVE OR REPLACE MICROPHONE PARTS | 0 | 0 | 0 |
| F 322 F1-09 DO YOU PERFORM TASKS ON CARBON MICROPHONES | 0 | 0 | 0 |
| F 323 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES | 0 | 0 | 0 |
| F 324 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES | 9 | 9 | 9 |
| F 325 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES | 0 | 0 | 0 |
| F 326 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES | 0 | 0 | 0 |

PCT MRRS RESPONDING 'YES' BY SELECTED GRPS
 TASK GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

0Y-TSM

SPC SPC
 076 077

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|-------|-------|---|---|---|---------------|
| F 327 | F2-01 | IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS | 0 | 0 | |
| F 328 | F2-02 | DO YOU INSPECT SPEAKERS | 0 | 0 | SPEAKERS |
| F 329 | F2-03 | DO YOU CLEAN SPEAKERS | 0 | 0 | |
| F 330 | F2-04 | DO YOU OPERATE SPEAKERS | 0 | 0 | |
| F 331 | F2-05 | DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT PARTS OF SPEAKERS | 0 | 0 | |
| F 332 | F2-06 | DO YOU TROUBLESHOOT DOWN TO SPEAKER PARTS | 0 | 0 | |
| F 333 | F2-07 | DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS | 0 | 0 | |
| F 334 | F2-08 | DO YOU REMOVE OR REPLACE SPEAKER PARTS | 0 | 0 | |
| F 335 | F2-09 | DO YOU PERFORM ANY TASKS ON SPEAKER CONES | 0 | 0 | |
| F 336 | F2-10 | DO YOU PERFORM ANY TASKS ON SPEAKER SPIDERS | 0 | 0 | |
| F 337 | F2-11 | DO YOU PERFORM ANY TASKS ON SPEAKER FIELD COILS | 0 | 0 | |
| F 338 | F2-12 | DO YOU PERFORM ANY TASKS ON SPEAKER VOICE COILS | 0 | 0 | |
| F 339 | F2-13 | DO YOU PERFORM ANY TASKS ON SPEAKER PERMANENT MAGNETS | 0 | 0 | |
| F 340 | F2-14 | DO YOU PERFORM ANY TASKS ON SPEAKER ELECTROMAGNETS | 0 | 0 | |
| F 341 | F2-15 | DO YOU PERFORM ANY TASKS ON SPEAKER SOFT IRON CONES | 0 | 0 | |
| F 342 | F3-01 | DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB | 0 | 0 | |
| F 343 | F3-02 | DO YOU USE OSCILLOSCOPES TO PERFORM OPERATIONAL CHECKS | 0 | 0 | OSCILLOSCOPES |
| F 344 | F3-03 | DO YOU USE OSCILLOSCOPES TO PERFORM ALIGNMENTS OR ADJUSTMENTS | 0 | 0 | |
| F 345 | F3-04 | DO YOU USE OSCILLOSCOPES TO TROUBLESHOOT ELECTRONIC CIRCUITS | 0 | 0 | |
| F 346 | F3-05 | DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCY | 0 | 0 | |
| F 347 | F3-06 | DO YOU USE OSCILLOSCOPES TO MEASURE TIME | 0 | 0 | |
| F 348 | F3-07 | DO YOU USE OSCILLOSCOPES TO OBSERVE LISAJOUS PATTERNS | 0 | 0 | |
| F 349 | F3-08 | DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES | 0 | 0 | |
| F 350 | F3-09 | DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS | 0 | 0 | |
| F 351 | F3-10 | DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGE | 0 | 0 | |
| F 352 | F3-11 | DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS | 0 | 0 | |
| F 353 | F3-12 | DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGE | 0 | 0 | |
| G 354 | G1-01 | DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB | 0 | 0 | |
| G 355 | G1-02 | DO YOU INSPECT DIODES | 0 | 0 | |
| G 356 | G1-03 | DO YOU REMOVE OR REPLACE DIODES | 0 | 0 | SEMICONDUCTOR |
| G 357 | G1-04 | DO YOU CHECK DIODES USING AN INSTRUMENT | 0 | 0 | DIODES |
| G 358 | G1-05 | DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES | 0 | 0 | |
| G 359 | G1-06 | DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE, TO COMPUTE FORWARD OR REVERSE LIAS RESISTANCE | 0 | 0 | |
| G 360 | G1-07 | DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES | 0 | 0 | |

TASK GROUP SUMMARY
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| | | |
|---|---|---|
| 6 361 61-08 DO YOU USE OR REFER TO THE GENERAL RULE THAT | 0 | 0 |
| TEMPERATURE CAN AFFECT THE OPERATION OF DIODES | | |
| 6 362 61-09 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO | 0 | 0 |
| OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON | | |
| THEIR PHYSICAL APPEARANCE | | |
| 6 363 61-10 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL | 0 | 0 |
| EFFECTS OF DOPING ON CURRENT FLOW | | |
| 6 364 61-11 DO YOU USE OR REFER TO MEASUREMENTS OF FORWARD BIAS | 0 | 0 |
| RESISTANCE | | |
| 6 365 61-12 DO YOU USE OR REFER TO DIODE COLOR CODING | 0 | 0 |
| 6 366 61-13 DO YOU USE OR REFER TO CENTRIFUGAL FORCE OF AN | 0 | 0 |
| ELECTRON IN ORBIT AROUND A NUCLEUS | | |
| 6 367 61-14 DO YOU USE OR REFER TO CENTRIPETAL FORCE OF AN | 0 | 0 |
| ELECTRON IN ORBIT AROUND A NUCLEUS | | |
| 6 368 61-15 DO YOU USE OR REFER TO DIODE NUMBERING SYSTEM, SUCH | 0 | 0 |
| AS IN 538 | | |
| 6 369 61-16 DO YOU USE OR REFER TO KINETIC ENERGY OF AN ELECTRON | 0 | 0 |
| MOVING IN ORBIT | | |
| 6 370 61-17 DO YOU USE OR REFER TO POTENTIAL ENERGY OF AN | 0 | 0 |
| ELECTRON MOVING IN ORBIT | | |
| 6 371 61-18 DO YOU USE OR REFER TO MEASUREMENTS OF REVERSE BIAS | 0 | 0 |
| RESISTANCE | | |
| 6 372 61-19 DO YOU USE OR REFER TO NUMBER OF ELECTRONS IN A | 0 | 0 |
| PARTICULAR SHELL OR ORBIT | | |
| 6 373 61-20 DO YOU USE OR REFER TO PERMISSIBLE ENERGY LEVELS OF | 0 | 0 |
| AN ORBITING ELECTRON | | |
| 6 374 61-21 DO YOU USE OR REFER TO FORBIDDEN ENERGY LEVELS OF AN | 0 | 0 |
| ORBITING ELECTRON | | |
| 6 375 61-22 DO YOU USE OR REFER TO VALENCE ELECTRONS (THOSE IN | 0 | 0 |
| THE OUTERMOST SHELL) | | |
| 6 376 61-23 DO YOU USE OR REFER TO ATOMIC NUMBER (TOTAL NUMBER OF | 0 | 0 |
| ELECTRONS IN ATOM) | | |
| 6 377 61-24 DO YOU USE OR REFER TO SYMBOLS ON THE DIODE WHICH | 0 | 0 |
| INDICATE THE CATHODE END | | |
| 6 378 61-25 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE | 0 | 0 |
| CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON | | |
| 6 379 61-26 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE | 0 | 0 |
| TEMPERATURE COEFFICIENTS OF RESISTANCE (AS TEMPERATURE | | |
| INCREASES RESISTANCE DECREASES) | | |
| 6 380 61-27 DO YOU USE OR REFER TO PN JUNCTION DIODE | 0 | 0 |
| CHARACTERISTIC CURVES, SUCH AS VOLTAGE - CURRENT | | |
| POINTS OF STRUCTURAL BREAKDOWN OR OPERATING REGIONS) | | |
| 6 381 61-28 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE | 0 | 0 |
| FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR | | |
| INTERPRET CIRCUIT DIAGRAMS | | |
| 6 382 61-29 DO YOU USE OR REFER TO VALENCE BAND IN SEMICONDUCTOR | 0 | 0 |
| MATERIALS | | |

PCT MEMRS RESPONDING 'YES' BY SELECTED GPPS

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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| | | DY-TSM | | SPC SPC | |
|-------|--|--------|---|---------|---|
| | | | | 076 077 | |
| 6 383 | 61-30 DO YOU USE OR REFER TO FORBIDDEN BAND IN SEMICONDUCTOR MATERIALS | 0 | 0 | 0 | 0 |
| 6 384 | 61-31 DO YOU USE OR REFER TO CONDUCTION BAND IN SEMICONDUCTOR MATERIALS | 0 | 0 | 0 | 0 |
| 6 385 | 61-32 DO YOU USE OR REFER TO COVALENT BONDING IN SEMICONDUCTOR MATERIALS | 0 | 0 | 0 | 0 |
| 6 386 | 61-33 DO YOU USE OR REFER TO ELECTRON-HOLE PAIR CREATED IN SEMICONDUCTORS | 0 | 0 | 0 | 0 |
| 6 387 | 61-34 DO YOU USE OR REFER TO ELECTRON FLOW OR HOLE FLOW IN SEMICONDUCTORS | 0 | 0 | 0 | 0 |
| 6 388 | 61-35 DO YOU USE OR REFER TO DONOR IMPURITY IN SEMICONDUCTORS | 0 | 0 | 0 | 0 |
| 6 389 | 61-36 DO YOU USE OR REFER TO ACCEPTOR IMPURITY IN SEMICONDUCTORS | 0 | 0 | 0 | 0 |
| 6 390 | 61-37 DO YOU USE OR REFER TO P-TYPE SEMICONDUCTOR MATERIAL | 0 | 0 | 0 | 0 |
| 6 391 | 61-38 DO YOU USE OR REFER TO N-TYPE SEMICONDUCTOR MATERIAL | 0 | 0 | 0 | 0 |
| 6 392 | 61-39 DO YOU USE OR REFER TO MAJORITY CARRIERS IN SEMICONDUCTORS | 0 | 0 | 0 | 0 |
| 6 393 | 61-40 DO YOU USE OR REFER TO MINORITY CARRIERS IN SEMICONDUCTORS | 0 | 0 | 0 | 0 |
| 6 394 | 61-41 DO YOU USE OR REFER TO JUNCTION RECOMBINATION IN SEMICONDUCTORS | 0 | 0 | 0 | 0 |
| 6 395 | 61-42 DO YOU USE OR REFER TO DEPLETION REGION IN SEMICONDUCTORS | 0 | 0 | 0 | 0 |
| 6 396 | 61-43 DO YOU USE OR REFER TO RELATIONSHIP BETWEEN BARRIER WIDTH AND DIFFERENCE OF POTENTIAL | 0 | 0 | 0 | 0 |
| 6 397 | 61-44 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT RESISTANCE RATIO FOR DIODES | 0 | 0 | 0 | 0 |
| 6 398 | 61-45 DO YOU USE OR REFER TO BARRIER HEIGHT IN SEMICONDUCTORS | 0 | 0 | 0 | 0 |
| 6 399 | 61-46 DO YOU USE OR REFER TO DIODE SUBSTITUTION INFORMATION | 0 | 0 | 0 | 0 |
| 6 400 | 61-47 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD CURRENT DIODE RATINGS | 0 | 0 | 0 | 0 |
| 6 401 | 61-48 DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT DIODE RATINGS | 0 | 0 | 0 | 0 |
| 6 402 | 61-49 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE RATINGS | 0 | 0 | 0 | 0 |
| 6 403 | 61-50 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE DIODE RATINGS | 0 | 0 | 0 | 0 |
| 6 404 | 62-01 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB. | 0 | 0 | 0 | 0 |
| 6 405 | 62-02 DO YOU INSPECT TRANSISTORS | 0 | 0 | 0 | 0 |
| 6 406 | 62-03 DO YOU REMOVE OR REPLACE TRANSISTORS | 0 | 0 | 0 | 0 |
| 6 407 | 62-04 DO YOU CHECK TRANSISTORS USING AN INSTRUMENT | 0 | 0 | 0 | 0 |
| 6 408 | 62-05 DO YOU USE OR REFER TO EMITTER - BASE (CB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS | 0 | 0 | 0 | 0 |
| 6 409 | 62-06 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD AND REVERSE RESISTANCE MEASUREMENTS | 0 | 0 | 0 | 0 |

TRANSISTORS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSM

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|-------|-------|---|---|---|
| 6 410 | 62-07 | DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC) | 0 | 0 |
| | | RESISTANCE MEASUREMENTS | | |
| 6 411 | 62-06 | DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION | 0 | 0 |
| 6 412 | 62-09 | DO YOU USE OR REFER TO HOW BIASING AFFECTS THE PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION | 0 | 0 |
| 6 413 | 62-10 | DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE TRANSISTOR STRUCTURE (COLLECTOR, BASE AND EMITTER) | 0 | 0 |
| 6 414 | 62-11 | DO YOU USE OR REFER TO LEAKAGE CURRENT (ICBO) IN A TRANSISTOR | 0 | 0 |
| 6 415 | 62-12 | DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS | 0 | 0 |
| 6 416 | 62-13 | DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS 01, 02, 03, ETC | 0 | 0 |
| 6 417 | 62-14 | DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION INFORMATION | 0 | 0 |
| 6 418 | 62-15 | DO YOU USE OR REFER TO THE GENERAL RULE THAT THE TRANSISTOR BASE CURRENT IB IS NORMALLY SIGNIFICANTLY SMALLER THAN THE EMITTER CURRENT IE (USUALLY IB BEING 2 TO 8 PERCENT OF IE) | 0 | 0 |
| 6 419 | 62-16 | DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR TRANSISTORS | 0 | 0 |
| 6 420 | 62-17 | DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT (ICBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES | 0 | 0 |
| 6 421 | 62-18 | DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC CURVES | 0 | 0 |
| 6 422 | 62-19 | DO YOU USE OR REFER TO BETA TRANSISTOR GAINS | 3 | 3 |
| 6 423 | 62-20 | DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS | 0 | 0 |
| 6 424 | 62-21 | DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS | 0 | 0 |
| 6 425 | 62-22 | DO YOU CALCULATE BETA TRANSISTOR GAINS | 0 | 0 |
| 6 426 | 62-23 | DO YOU CALCULATE ALPHA TRANSISTOR GAINS | 0 | 0 |
| 6 427 | 62-24 | DO YOU CALCULATE GAMMA TRANSISTOR GAINS | 0 | 0 |
| 6 428 | 63-01 | DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR PRESENT JOB | 0 | 0 |
| 6 429 | 63-02 | DO YOU INSPECT TRANSISTOR AMPLIFIERS | 0 | 0 |
| 6 430 | 63-03 | DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS | 0 | 0 |
| 6 431 | 63-04 | DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL | 0 | 0 |
| 6 432 | 63-05 | DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS | 0 | 0 |
| 6 433 | 63-06 | DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER | 0 | 0 |
| 6 434 | 63-07 | DO YOU REMOVE OR REPLACE AMPLIFIER COMPONENTS | 0 | 0 |
| 6 435 | 63-08 | DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN COLLECTOR CURRENT WHICH RESULTS FROM A CHANGE IN BASE CURRENT | 0 | 0 |
| 6 436 | 63-09 | DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN COLLECTOR CURRENT WHICH RESULTS FROM A SPECIFIC CHANGE IN BASE CURRENT | 0 | 0 |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

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|---|---|---|
| 6 437 63-10 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN COLLECTOR VOLTAGE WHICH RESULTS FROM A CHANGE IN BASE CURRENT | 0 | 0 |
| 6 438 63-11 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN COLLECTOR VOLTAGE WHICH RESULTS FROM A SPECIFIC CHANGE IN BASE CURRENT | 0 | 0 |
| 6 439 63-12 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL | 0 | 0 |
| 6 440 63-13 DO YOU USE OR REFER TO (COMMON EMITTER) THE CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN BASE CURRENT WHICH RESULTS FROM A SPECIFIC INPUT SIGNAL | 0 | 0 |
| 6 441 63-14 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A LOAD-LINE ON A TRANSISTOR CHARACTERISTIC CURVE) | 0 | 0 |
| 6 442 63-15 DO YOU USE OR REFER TO THE OPERATING POINT Q (QUIESCENT POINT) FOR A TRANSISTOR | 0 | 0 |
| 6 443 63-16 DO YOU CALCULATE THE SPECIFIC QUIESCENT POINT FOR A PARTICULAR TRANSISTOR | 0 | 0 |
| 6 444 63-17 DO YOU MEASURE VOLTAGE GAIN USED IN THE COMMON EMITTER CONFIGURATION | 0 | 0 |
| 6 445 63-18 DO YOU MEASURE CURRENT GAIN USED IN THE COMMON EMITTER CONFIGURATION | 0 | 0 |
| 6 446 63-19 DO YOU MEASURE POWER GAIN USED IN THE COMMON EMITTER CONFIGURATION | 0 | 0 |
| 6 447 63-20 DO YOU CALCULATE THE VOLTAGE GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE CHANGE IN BASE-EMITTER VOLTAGE INTO THE CHANGE THE BASE COLLECTOR VOLTAGE TO DETERMINE THE VOLTAGE GAIN | 0 | 0 |
| 6 448 63-21 DO YOU CALCULATE THE CURRENT GAIN FOR SPECIFIC TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE CHANGE IN BASE CURRENT INTO THE CHANGE IN COLLECTOR CURRENT TO DETERMINE THE CURRENT GAIN | 0 | 0 |
| 6 449 63-22 DO YOU CALCULATE THE POWER GAIN FOR A SPECIFIC TRANSISTOR USING A FORMULA THAT IS, DO YOU MULTIPLY THE CURRENT GAIN TIMES THE VOLTAGE GAIN TO DETERMINE THE POWER GAIN | 0 | 0 |
| 6 450 63-23 DO YOU NEED TO KNOW THAT MORE COLLECTOR CURRENT IS GENERATED WITH LESS COLLECTOR VOLTAGE AS TEMPERATURE INCREASES (THIS AFFECTS THE STATIC OPERATING POINT EQ OF THE TRANSISTOR) | 0 | 0 |
| 6 451 63-24 DO YOU COMPUTE THE STATIC OPERATING POINT EQ OF A TRANSISTOR AT DIFFERENT TEMPERATURES | 0 | 0 |
| 6 452 63-25 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH EMITTER (SWAMPING) RESISTOR STABILIZATION | 0 | 0 |
| 6 453 63-26 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH SELF-BIAS STABILIZATION | 0 | 0 |

TASK GROUP SUMMARY
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|-------|---|---|---|
| G 454 | G3-27 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH THERMISTOR STABILIZATION | 0 | 0 |
| G 455 | G3-28 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH FORWARD BIAS DIODE STABILIZATION | 0 | 0 |
| G 456 | G3-29 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH REVERSE BIAS DIODE STABILIZATION | 0 | 0 |
| G 457 | G3-30 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH DOUBLE DIODE STABILIZATION | 0 | 0 |
| G 458 | G3-31 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM EMITTER (SWAMPING) RESISTOR STABILIZATION | 0 | 0 |
| G 459 | G3-32 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM SELF-BIAS STABILIZATION | 0 | 0 |
| G 460 | G3-33 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM THERMISTOR STABILIZATION | 0 | 0 |
| G 461 | G3-34 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM FORWARD BIAS DIODE STABILIZATION | 0 | 0 |
| G 462 | G3-35 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM REVERSE BIAS DIODE STABILIZATION | 0 | 0 |
| G 463 | G3-36 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS WHICH PERFORM DOUBLE DIODE STABILIZATION | 0 | 0 |
| G 464 | G3-37 DO YOU IDENTIFY AMPLITUDE DISTORTION FOR TRANSISTOR CIRCUITS | 0 | 0 |
| G 465 | G3-38 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF AMPLITUDE DISTORTION | 0 | 0 |
| G 466 | G3-39 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR CIRCUITS | 0 | 0 |
| G 467 | G3-40 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR CIRCUITS | 0 | 0 |
| G 468 | G3-41 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF PHASE DISTORTION | 0 | 0 |
| G 469 | G3-42 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE CAUSES OF FREQUENCY DISTORTION | 0 | 0 |
| G 470 | G3-43 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR TRANSISTOR AMPLIFIERS IN THE COMMON COLLECTOR CONFIGURATION | 0 | 0 |
| G 471 | G3-44 DO YOU DETERMINE THE CLASS OF OPERATION FOR AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS | 0 | 0 |
| G 472 | G3-45 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS | 0 | 0 |
| G 473 | G3-46 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS | 0 | 0 |
| G 474 | G3-47 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY CIRCUITS | 0 | 0 |
| G 475 | G3-48 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS | 0 | 0 |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

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TASK GROUP SUMMARY
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|---|-----|-------|---|---|---|---|-----------------|
| 6 | 476 | G3-49 | DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED | 0 | 0 | 0 | |
| | | | AMPLIFIERS | | | | |
| H | 477 | H1-01 | DO YOU USE OR REFER TO VARACTORS | 0 | 0 | 0 | |
| H | 478 | H1-02 | DO YOU USE OR REFER TO TUNNEL DIODES | 0 | 0 | 0 | |
| H | 479 | H1-03 | DO YOU USE OR REFER TO FIELD EFFECT TRANSISTORS (FET) | 0 | 0 | 0 | SOLID-STATE |
| H | 480 | H1-04 | DO YOU USE OR REFER TO UNIJUNCTION TRANSISTORS | 0 | 0 | 0 | SPECIAL PURPOSE |
| H | 481 | H1-05 | DO YOU USE OR REFER TO ZENER DIODES | 0 | 0 | 0 | DEVICES |
| H | 482 | H1-06 | DO YOU USE OR REFER TO INTEGRATED CIRCUITS | 0 | 0 | 0 | |
| H | 483 | H2-01 | IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES | 6 | 6 | 6 | |
| H | 484 | H2-02 | DO YOU INSPECT POWER SUPPLIES | 0 | 0 | 0 | |
| H | 485 | H2-03 | DO YOU CLEAN POWER SUPPLIES | 0 | 0 | 0 | |
| H | 486 | H2-04 | DO YOU ALIGN OR ADJUST POWER SUPPLIES | 3 | 3 | 3 | POWER SUPPLIES |
| H | 487 | H2-05 | DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL | 3 | 3 | 3 | |
| H | 488 | H2-06 | DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS | 0 | 0 | 0 | |
| H | 489 | H2-07 | DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES | 0 | 0 | 0 | |
| H | 490 | H2-08 | DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS | 0 | 0 | 0 | |
| H | 491 | H2-09 | DO YOU WORK WITH HALF-WAVE RECTIFIERS | 0 | 0 | 0 | |
| H | 492 | H2-10 | DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN | 0 | 0 | 0 | |
| | | | BRIDGE RECTIFIERS | | | | |
| H | 493 | H2-11 | DO YOU WORK WITH PRIDGE RECTIFIERS | 0 | 0 | 0 | |
| H | 494 | H2-12 | DO YOU WORK WITH THREE-PHASE RECTIFIERS | 0 | 0 | 0 | |
| H | 495 | H2-13 | DO YOU USE OR REFER TO INPUT VOLTAGE | 0 | 0 | 0 | |
| H | 496 | H2-14 | DO YOU USE OR REFER TO INPUT FREQUENCY | 0 | 0 | 0 | |
| H | 497 | H2-15 | DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGE | 0 | 0 | 0 | |
| H | 498 | H2-16 | DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGE | 3 | 3 | 3 | |
| H | 499 | H2-17 | DO YOU USE OR REFER TO RIPPLE AMPLITUDE | 0 | 0 | 0 | |
| H | 500 | H2-18 | DO YOU USE OR REFER TO RIPPLE FREQUENCY | 0 | 0 | 0 | |
| H | 501 | H2-19 | DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE | 0 | 0 | 0 | |
| H | 502 | H2-20 | DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS | 0 | 0 | 0 | |
| H | 503 | H2-21 | DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGE | 0 | 0 | 0 | |
| H | 504 | H2-22 | DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE | 0 | 0 | 0 | |
| | | | FILTERS | | | | |
| H | 505 | H2-23 | DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE | 0 | 0 | 0 | |
| | | | FILTERS | | | | |
| H | 506 | H2-24 | DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE | 0 | 0 | 0 | |
| | | | INPUT L-TYPE FILTERS | | | | |
| H | 507 | H2-25 | DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE | 0 | 0 | 0 | |
| | | | INPUT L-TYPE FILTERS | | | | |
| H | 508 | H2-26 | DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE | 0 | 0 | 0 | |
| | | | FILTERS | | | | |
| H | 509 | H2-27 | DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE | 0 | 0 | 0 | |
| | | | FILTERS | | | | |
| H | 510 | H2-28 | DO YOU WORK WITH CIRCUITS WHICH EMPLOY DONT | 3 | 3 | 3 | |
| | | | REMEMBER WHICH TYPE OF FILTER | | | | |
| H | 511 | H2-29 | DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF | 0 | 0 | 0 | |
| | | | FILTER WITH A DIFFERENT TYPE FILTER | | | | |
| H | 512 | H3-01 | DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB | 0 | 0 | 0 | OSCILLATORS |

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| | | | |
|---|---|---|---|
| H 513 H3-02 DO YOU INSPECT OSCILLATORS | 0 | 0 | 0 |
| H 514 H3-03 DO YOU ALIGN OR ADJUST OSCILLATORS | 0 | 0 | 0 |
| H 515 H3-04 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS | 0 | 0 | 0 |
| H 516 H3-05 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS | 0 | 0 | 0 |
| H 517 H3-06 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL | 0 | 0 | 0 |
| H 518 H3-07 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS | 0 | 0 | 0 |
| H 519 H3-08 DO YOU USE OR REFER TO FEEDBACK | 0 | 0 | 0 |
| H 520 H3-09 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES | 0 | 0 | 0 |
| (FDD) | | | |
| H 521 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY | 0 | 0 | 0 |
| H 522 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY | 0 | 0 | 0 |
| H 523 H3-12 DO YOU USE OR REFER TO DAMPING | 0 | 0 | 0 |
| H 524 H3-13 DO YOU USE OR REFER TO REGENERATIVE FEEDBACK | 0 | 0 | 0 |
| H 525 H3-14 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT | 0 | 0 | 0 |
| H 526 H3-15 DO YOU USE OR REFER TO CRITICAL DAMPING | 0 | 0 | 0 |
| H 527 H3-16 DO YOU USE OR REFER TO UNDER DAMPING | 0 | 0 | 0 |
| H 528 H3-17 DO YOU USE OR REFER TO OVER DAMPING | 0 | 0 | 0 |
| H 529 H3-18 DO YOU WORK WITH OSCILLATORS WHICH USE LC TANK | 0 | 0 | 0 |
| CIRCUITS AS FDD | | | |
| H 530 H3-19 DO YOU WORK WITH OSCILLATORS WHICH USE RC NETWORKS AS | 0 | 0 | 0 |
| FDD | | | |
| H 531 H3-20 DO YOU WORK WITH OSCILLATORS WHICH USE CRYSTALS AS | 0 | 0 | 0 |
| FDD | | | |
| H 532 H3-21 DO YOU WORK WITH OSCILLATORS WHICH USE DON'T REMEMBER | 0 | 0 | 0 |
| WHICH TYPE OF FDD | | | |
| H 533 H3-22 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL | 0 | 0 | 0 |
| OSCILLATORS | | | |
| H 534 H3-23 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS | 0 | 0 | 0 |
| H 535 H3-24 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS | 0 | 0 | 0 |
| H 536 H3-25 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS | 0 | 0 | 0 |
| H 537 H3-26 DO YOU WORK WITH BUTLER SINUSOIDAL OSCILLATORS | 0 | 0 | 0 |
| H 538 H3-27 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF | 0 | 0 | 0 |
| OSCILLATORS | | | |
| I 539 I1-01 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB | 0 | 0 | 0 |
| I 540 I1-02 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS | 0 | 0 | 0 |
| I 541 I1-03 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING | 0 | 0 | 0 |
| CIRCUITS | | | |
| I 542 I1-04 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS | 0 | 0 | 0 |
| I 543 I1-05 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING | 0 | 0 | 0 |
| CIRCUITS | | | |
| I 544 I1-06 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING | 0 | 0 | 0 |
| CIRCUIT COMPONENTS | | | |
| I 545 I1-07 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR | 0 | 0 | 0 |
| SHAPING CIRCUITS | | | |
| I 546 I1-08 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING | 0 | 0 | 0 |
| COMPONENTS | | | |
| I 547 I1-09 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK | 0 | 0 | 0 |
| CIRCUITS | | | |

MULTIVIBRATORS

PCT MBRS RESPONDING 'YES' BY SELECTED GAPS

GPSUM4 PAGE 21

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-15K

SPC SPC
076 077

| | | | | | |
|-------|-------|--|---|---|-----------------------|
| I 548 | 11-10 | DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC NETWORKS | 0 | 0 | |
| I 549 | 11-11 | DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN CRYSTALS | 0 | 0 | |
| I 550 | 11-12 | DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN DON'T REMEMBER WHICH TYPE OF FDD | 0 | 0 | |
| I 551 | 11-13 | DO YOU WORK WITH ASTABLE MULTIVIBRATORS | 0 | 0 | |
| I 552 | 11-14 | DO YOU WORK WITH MONOSTABLE MULTIVIBRATORS | 0 | 0 | |
| I 553 | 11-15 | DO YOU WORK WITH BISTABLE MULTIVIBRATORS | 0 | 0 | |
| I 554 | 11-16 | DO YOU WORK WITH DON'T REMEMBER WHICH TYPE MULTIVIBRATORS | 0 | 0 | |
| I 555 | 12-01 | DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR PRESENT JOB | 0 | 0 | |
| I 556 | 12-02 | DO YOU WORK WITH SERIES DIODE LIMITERS | 0 | 0 | LIMITERS AND CLAMPERS |
| I 557 | 12-03 | DO YOU WORK WITH SHUNT DIODE LIMITERS | 0 | 0 | |
| I 558 | 12-04 | DO YOU WORK WITH LIMITERS WITH BIAS | 0 | 0 | |
| I 559 | 12-05 | DO YOU WORK WITH ZENER DIODE LIMITERS | 0 | 0 | |
| I 560 | 12-06 | DO YOU WORK WITH TRANSISTOR LIMITERS | 0 | 0 | |
| I 561 | 12-07 | DO YOU WORK WITH DON'T KNOW WHICH TYPE OF LIMITERS | 0 | 0 | |
| I 562 | 12-08 | DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS | 0 | 0 | |
| I 563 | 12-09 | DO YOU WORK WITH DIODE CLAMPING CIRCUITS WITH BIAS | 0 | 0 | |
| I 564 | 12-10 | DO YOU WORK WITH DON'T KNOW WHICH TYPE OF CLAMPING CIRCUIT | 0 | 0 | |
| I 565 | 13-01 | IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH CONTAINS ELECTRON TUBES | 0 | 0 | |
| I 566 | 13-02 | DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD | 0 | 0 | ELECTRON TUBES |
| I 567 | 13-03 | DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES | 0 | 0 | |
| I 568 | 13-04 | DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES | 0 | 0 | |
| I 569 | 13-05 | DO YOU USE SCOPES TO CHECK ELECTRON TUBES | 0 | 0 | |
| I 570 | 13-06 | DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES | 0 | 0 | |
| I 571 | 13-07 | DO YOU USE OR REFER TO CUTOFF | 0 | 0 | |
| I 572 | 13-08 | DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING | 3 | 3 | |
| I 573 | 13-09 | DO YOU USE OR REFER TO PEAK CURRENT RATING | 0 | 0 | |
| I 574 | 13-10 | DO YOU USE OR REFER TO TRANSIT TIME | 0 | 0 | |
| I 575 | 13-11 | DO YOU USE OR REFER TO PLATE DISSIPATION RATING | 0 | 0 | |
| I 576 | 13-12 | DO YOU USE OR REFER TO SATURATION | 0 | 0 | |
| I 577 | 13-13 | DO YOU USE OR REFER TO DC PLATE RESISTANCE | 0 | 0 | |
| I 578 | 13-14 | DO YOU COMPUTE ACTUAL VALUES OF THE DC PLATE RESISTANCE FOR ELECTRON TUBES | 0 | 0 | |
| I 579 | 13-15 | DO YOU USE OR REFER TO PLATE VOLTAGE | 0 | 0 | |
| I 580 | 13-16 | DO YOU USE OR REFER TO PLATE CURRENT | 0 | 0 | |
| I 581 | 13-17 | DO YOU USE OR REFER TO GRID VOLTAGE | 0 | 0 | |
| I 582 | 13-18 | DO YOU USE OR REFER TO GRID CURRENT | 0 | 0 | |
| I 583 | 13-19 | DO YOU USE OR REFER TO CATHODE VOLTAGE | 0 | 0 | |
| I 584 | 13-20 | DO YOU USE OR REFER TO CATHODE CURRENT | 0 | 0 | |
| I 585 | 13-21 | DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION FACTOR (THE AMPLIFICATION FACTOR FOR TRIODES IS DEFINED AS THE RATIO OF CHANGE IN PLATE VOLTAGE TO A CHANGE IN GRID VOLTAGE) | 0 | 0 | |

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| | SPC | SPC |
|--|-----|-----|
| | 076 | 077 |
| DY-TSK | | |
| I 586 13-22 DO YOU CALCULATE ACTUAL VALUES OF TRIODE AMPLIFICATION FACTORS | 0 | 0 |
| I 587 13-23 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC) AMPLIFICATION FACTORS | 0 | 0 |
| I 588 13-24 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G, WHICH IS MEASURED IN MHOS) | 0 | 0 |
| I 589 13-25 DO YOU CALCULATE ACTUAL VALUES OF ELECTRON TUBE TRANSCONDUCTANCES | 0 | 0 |
| I 590 13-26 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE | 0 | 0 |
| I 591 13-27 DO YOU CALCULATE ACTUAL VALUES OF AC PLATE RESISTANCE | 0 | 0 |
| I 592 13-28 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE | 0 | 0 |
| I 593 13-29 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES | 0 | 0 |
| I 594 13-30 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE VOLTAGE FOR A SPECIFIED BIAS | 0 | 0 |
| I 595 13-31 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE CURRENT FOR A SPECIFIED BIAS | 0 | 0 |
| I 596 13-32 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR CUTOFF | 0 | 0 |
| I 597 13-33 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR SATURATION | 0 | 0 |
| I 598 13-34 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER GAIN | 0 | 0 |
| I 599 13-35 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER EFFICIENCY | 0 | 0 |
| I 600 13-36 DO YOU USE TEST TUBE CHECKERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN | 0 | 0 |
| I 601 13-37 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN | 0 | 0 |
| I 602 13-38 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN | 0 | 0 |
| I 603 13-39 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN | 0 | 0 |
| I 604 13-40 DO YOU CALCULATE ANY ELECTRON TUBE CAPACITANCES SUCH AS INPUT CAPACITANCE | 0 | 0 |
| I 605 13-41 DO YOU USE OR REFER TO TUBE SOCKET NOTATION | 0 | 0 |
| I 606 13-42 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS | 0 | 0 |
| I 607 13-43 DO YOU USE OR REFER TO THE TYPE OF MATERIAL OR THE OPERATING TEMPERATURE OF THE EMITTING SURFACE IN THE ELECTRON TUBES YOU WORK ON | 0 | 0 |
| I 608 13-44 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS | 0 | 0 |
| J 609 J1-01 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB | 0 | 0 |
| J 610 J1-02 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS | 0 | 0 |

ELECTRON TUBE AMPLIFIERS AND CIRCUITS

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

GPSSUM4 PAGE 23

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSM

SPC SPC
076 077

| | | | | | | |
|-------|-------|---|---|---|---|--|
| J 611 | J1-03 | DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS | 0 | 0 | 0 | |
| J 612 | J1-04 | DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS | 0 | 0 | 0 | |
| J 613 | J1-05 | DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED AMPLIFIERS | 0 | 0 | 0 | |
| J 614 | J1-06 | DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED AMPLIFIERS | 0 | 0 | 0 | |
| J 615 | J1-07 | DO YOU TROUBLESHOOT OR REPAIR DON'T KNOW WHICH TYPE OF AMPLIFIER | 0 | 0 | 0 | |
| J 616 | J2-01 | DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD CATHODE) | 0 | 0 | 0 | |
| J 617 | J2-02 | DO YOU WORK WITH CATHODE-RAY TUBES | 0 | 0 | 0 | SPECIAL PURPOSE ELECTRON TUBES |
| J 618 | J2-03 | DO YOU USE OR REFER TO THE CHARACTERISTICS OF BEAM POWER TUBES | 0 | 0 | 0 | |
| J 619 | J2-04 | DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH BEAM POWER TUBES ARE USED | 0 | 0 | 0 | |
| J 620 | J2-05 | DO YOU USE OR REFER TO THE CHARACTERISTICS OF THYRATONS | 0 | 0 | 0 | |
| J 621 | J2-06 | DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH THYRATONS ARE USED | 0 | 0 | 0 | |
| J 622 | J2-07 | DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTRON GUNS OF CATHODE-RAY TUBES (CRT) | 0 | 0 | 0 | |
| J 623 | J2-08 | DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT) | 0 | 0 | 0 | |
| J 624 | J2-09 | DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES (CRT) | 0 | 0 | 0 | |
| J 625 | J2-10 | DO YOU USE OR REFER TO PHOSPHOR SCREENS | 0 | 0 | 0 | |
| J 626 | J2-11 | DO YOU USE OR REFER TO AQUADAG COATINGS | 0 | 0 | 0 | |
| J 627 | J2-12 | DO YOU USE OR REFER TO ELECTRON OPTICS | 0 | 0 | 0 | |
| J 628 | J2-13 | DO YOU USE OR REFER TO PERSISTENCE | 0 | 0 | 0 | |
| J 629 | J2-14 | DO YOU USE OR REFER TO DECAY TIMES | 0 | 0 | 0 | |
| J 630 | J2-15 | DO YOU USE OR REFER TO FLUORESCENCE | 0 | 0 | 0 | |
| J 631 | J2-16 | DO YOU USE OR REFER TO PHOSPHORESCENCE | 0 | 0 | 0 | |
| J 632 | J3-01 | DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB | 0 | 0 | 0 | |
| J 633 | J3-02 | DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS | 0 | 0 | 0 | HETERODYNING, MODULATION, AND DEMODULATION |
| J 634 | J3-03 | DO YOU PERFORM TASKS ON FREQUENCY MIXERS | 0 | 0 | 0 | |
| J 635 | J3-04 | DO YOU USE OR REFER TO THE HETERODYNING OF SIGNALS IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS | 0 | 0 | 0 | |
| J 636 | J3-05 | DO YOU PERFORM TASKS ON REACTANCE MODULATORS | 0 | 0 | 0 | |
| J 637 | J3-06 | DO YOU PERFORM TASKS ON MODULATED OSCILLATORS | 0 | 0 | 0 | |
| K 638 | K1-01 | DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB | 0 | 0 | 0 | |
| K 639 | K1-02 | DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS | 0 | 0 | 0 | AM SYSTEMS |
| K 640 | K1-03 | DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS | 0 | 0 | 0 | |
| K 641 | K1-04 | DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS | 0 | 0 | 0 | |

PCT MARS RESPONDING *YES* BY SELECTED GRPS

GPSUM4 PAGE 24

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| | GY-TSK | SFC | SPC | |
|---|--------|-----|-----|------------|
| | | 076 | 077 | |
| K 642 K1-05 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS | | 0 | 0 | |
| K 643 K1-06 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE COMPONENTS | | 0 | 0 | |
| K 644 K1-07 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE SYSTEMS | | 0 | 0 | |
| K 645 K1-08 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE COMPONENTS | | 0 | 0 | |
| K 646 K1-09 DO YOU PERFORM TASKS ON RF OSCILLATORS | | 0 | 0 | |
| K 647 K1-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS | | 0 | 0 | |
| K 648 K1-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS | | 0 | 0 | |
| K 649 K1-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS | | 0 | 0 | |
| K 650 K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS | | 0 | 0 | |
| K 651 K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS | | 0 | 0 | |
| K 652 K1-15 DO YOU PERFORM TASKS ON DETECTORS | | 0 | 0 | |
| K 653 K1-16 DO YOU PERFORM TASKS ON DON'T REMEMBER WHICH AM STAGE | | 0 | 0 | |
| K 654 K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN TRANSMITTERS | | 0 | 0 | |
| K 655 K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN TRANSMITTERS | | 0 | 0 | |
| K 656 K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS | | 0 | 0 | |
| K 657 K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS | | 0 | 0 | |
| K 658 K1-21 DO YOU USE OR REFER TO 2ND HARMONIC DISTORTION | | 0 | 0 | |
| K 659 K1-22 DO YOU USE OR REFER TO BANDPASS DISTORTION | | 0 | 0 | |
| K 660 K1-23 DO YOU USE OR REFER TO SQUARE LAW DISTORTION | | 0 | 0 | |
| K 661 K1-24 DO YOU USE OR REFER TO CO-CHANNEL INTERFERENCE | | 0 | 0 | |
| K 662 K1-25 DO YOU USE OR REFER TO IMAGE FREQUENCIES IN RECEIVERS | | 0 | 0 | |
| K 663 K1-26 DO YOU USE OR REFER TO SIGNAL TO IMAGE RATIOS OR IMAGE REJECTION RATIOS | | 0 | 0 | |
| K 664 K1-27 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM TRANSMITTER SCHEMATIC DIAGRAMS | | 0 | 0 | |
| K 665 K1-28 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM RECEIVER SCHEMATIC DIAGRAMS | | 0 | 0 | |
| K 666 K2-01 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN YOUR PRESENT JOB | | 0 | 0 | |
| K 667 K2-02 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS | | 0 | 0 | FM SYSTEMS |
| K 668 K2-03 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS | | 0 | 0 | |
| K 669 K2-04 DO YOU ALIGN FM TRANSMIT OR RECEIVE SYSTEMS | | 0 | 0 | |
| K 670 K2-05 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE SYSTEMS | | 0 | 0 | |
| K 671 K2-06 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE COMPONENTS | | 0 | 0 | |
| K 672 K2-07 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE SYSTEMS | | 0 | 0 | |
| K 673 K2-08 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE COMPONENTS | | 0 | 0 | |
| K 674 K2-09 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS | | 0 | 0 | |
| K 675 K2-10 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS | | 0 | 0 | |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

GPSUM4 PAGE 25

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| TASK | GROUP | SUMMARY | PERCENT MEMBERS PERFORMING | |
|--------|-------|---|----------------------------|-----|
| | | | SPC | SPC |
| | | | 076 | 077 |
| DY-TSK | | | | |
| K 676 | K2-11 | DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE AMPLIFIERS) | 0 | 0 |
| K 677 | K2-12 | DO YOU PERFORM TASKS ON POWER AMPLIFIERS | 0 | 0 |
| K 678 | K2-13 | DO YOU PERFORM TASKS ON RF AMPLIFIERS | 0 | 0 |
| K 679 | K2-14 | DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS | 0 | 0 |
| K 680 | K2-15 | DO YOU PERFORM TASKS ON IF AMPLIFIERS | 0 | 0 |
| K 681 | K2-16 | DO YOU PERFORM TASKS ON LIMITERS | 0 | 0 |
| K 682 | K2-17 | DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS | 0 | 0 |
| K 683 | K2-18 | DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM TRANSMITTERS | 0 | 0 |
| K 684 | K2-19 | DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SCHEMATIC DIAGRAMS OF FM RECEIVERS | 0 | 0 |
| K 685 | K3-01 | DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL (BASE 8) NUMBERS | 0 | 0 |
| K 686 | K3-02 | DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2) NUMBERS | 0 | 0 |
| K 687 | K3-03 | DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS | 0 | 0 |
| K 688 | K3-04 | DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS | 0 | 0 |
| K 689 | K3-05 | DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS | 0 | 0 |
| K 690 | K3-06 | DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS | 0 | 0 |
| K 691 | K3-07 | DO YOU ADD BINARY NUMBERS TO GET A SUM | 0 | 0 |
| K 692 | K3-08 | DO YOU SUBTRACT BINARY NUMBERS USING THE END-AROUND-CARRY METHOD | 0 | 0 |
| K 693 | K3-09 | DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT SUBTRACTION METHOD | 0 | 0 |
| K 694 | K3-10 | DO YOU ADD OCTAL NUMBERS TO GET A SUM | 0 | 0 |
| L 695 | L1-01 | IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO LOGIC FUNCTIONS | 0 | 0 |
| L 696 | L1-02 | DO YOU CONSTRUCT TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES | 0 | 0 |
| L 697 | L1-03 | DO YOU CONSTRUCT TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES | 0 | 0 |
| L 698 | L1-04 | DO YOU CONSTRUCT TRUTH TABLES FOR AND OR LOGIC SYMBOLS WITH STATE INDICATORS | 0 | 0 |
| L 699 | L1-05 | DO YOU CONSTRUCT TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS OR GATES | 0 | 0 |
| L 700 | L1-06 | DO YOU USE OR REFER TO TRUTH TABLES FOR AND LOGIC SYMBOLS OR GATES | 0 | 0 |
| L 701 | L1-07 | DO YOU USE OR REFER TO TRUTH TABLES FOR OR LOGIC SYMBOLS OR GATES | 0 | 0 |
| L 702 | L1-08 | DO YOU USE OR REFER TO TRUTH TABLES FOR AND OR OR LOGIC SYMBOLS WITH STATE INDICATORS | 0 | 0 |
| L 703 | L1-09 | DO YOU USE OR REFER TO TRUTH TABLES FOR EXCLUSIVE OR LOGIC SYMBOLS | 0 | 0 |
| L 704 | L1-10 | DO YOU USE OR REFER TO LOGIC SYMBOLS FOR AND GATES | 0 | 0 |
| L 705 | L1-11 | DO YOU USE OR REFER TO LOGIC SYMBOLS FOR OR GATES | 0 | 0 |
| L 706 | L1-12 | DO YOU USE OR REFER TO LOGIC SYMBOLS FOR NAND OR NOR GATES | 0 | 0 |

NUMBERING
SYSTEMS

LOGIC FUNCTIONS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| | SPC | SPC | |
|--|-----|-----|-------------------|
| | 076 | 077 | |
| L 707 L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR EXCLUSIVE OR GATES | 0 | 0 | |
| L 708 L2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC CIRCUITS | 0 | 0 | BOOLEAN EQUATIONS |
| L 709 L2-02 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUITS | 0 | 0 | |
| L 710 L2-03 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS | 0 | 0 | |
| L 711 L2-04 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN EQUATIONS | 0 | 0 | |
| L 712 L2-05 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES | 0 | 0 | |
| L 713 L2-06 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS | 0 | 0 | |
| L 714 L2-07 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN ALGEBRA | 0 | 0 | |
| L 715 L2-08 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES | 0 | 0 | |
| L 716 L2-09 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE LOGIC (CML) CIRCUITS | 0 | 0 | |
| L 717 L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF MORE THAN ONE GATE | 0 | 0 | |
| L 718 L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL HALF OR FULL ADDER LOGIC DIAGRAMS | 0 | 0 | |
| L 719 L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER LOGIC DIAGRAMS | 0 | 0 | |
| L 720 L2-13 DO YOU WORK WITH ASTABLE (FREE RUNNING) MULTIVIBRATORS | 0 | 0 | |
| L 721 L2-14 DO YOU WORK WITH BISTABLE (FLIP-FLOP) MULTIVIBRATORS | 0 | 0 | |
| L 722 L2-15 DO YOU WORK WITH MONOSTABLE TONE-SHOT MULTIVIBRATORS | 0 | 0 | |
| L 723 L2-16 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR SYMBOLS | 0 | 0 | |
| L 724 L2-17 DO YOU USE OR REFER TO SINGLE-SHOT MULTIVIBRATOR SYMBOLS | 0 | 0 | |
| L 725 L2-18 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT DIAGRAMS | 0 | 0 | |
| L 726 L2-19 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES | 0 | 0 | |
| L 727 L2-20 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP LOGIC SYMBOLS | 0 | 0 | |
| L 728 L2-21 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC SYMBOLS | 0 | 0 | |
| L 729 L2-22 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS | 0 | 0 | |
| L 730 L2-23 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP SCHEMATIC DIAGRAMS | 0 | 0 | |
| L 731 L2-24 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-FLOP SCHEMATIC DIAGRAMS | 0 | 0 | |
| L 732 L2-25 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP LOGIC SYMBOLS | 0 | 0 | |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

GPSUM4 PAGE 27

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC
076 077

| | | | | | | |
|-------|-------|---|---|---|---|-----------------|
| L 733 | L3-01 | DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB | 0 | 0 | 0 | |
| L 734 | L3-02 | DO YOU USE OR REFER TO UP-COUNTERS | 0 | 0 | 0 | |
| L 735 | L3-03 | DO YOU USE OR REFER TO DOWN-COUNTERS | 0 | 0 | 0 | COUNTERS |
| L 736 | L3-04 | DO YOU USE OR REFER TO SERIAL COUNTERS | 0 | 0 | 0 | |
| L 737 | L3-05 | DO YOU USE OR REFER TO PARALLEL COUNTERS | 0 | 0 | 0 | |
| L 738 | L3-06 | DO YOU USE OR REFER TO RING COUNTERS | 0 | 0 | 0 | |
| L 739 | L3-07 | DO YOU USE OR REFER TO DECADE COUNTERS | 0 | 0 | 0 | |
| L 740 | L3-08 | DO YOU USE OR REFER TO COUNT DETECT CIRCUITS | 0 | 0 | 0 | |
| L 741 | L3-09 | DO YOU USE OR REFER TO DOWN CLOCKS | 0 | 0 | 0 | |
| L 742 | L3-10 | DO YOU USE OR REFER TO UP CLOCKS | 0 | 0 | 0 | |
| L 743 | L3-11 | DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS | 0 | 0 | 0 | |
| L 744 | L3-12 | DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTING FLIP-FLOPS | 0 | 0 | 0 | |
| L 745 | L3-13 | DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF DECADE COUNTERS | 0 | 0 | 0 | |
| L 746 | L3-14 | DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF RING COUNTERS | 0 | 0 | 0 | |
| L 747 | L3-15 | DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER | 0 | 0 | 0 | |
| L 748 | L3-16 | DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS | 0 | 0 | 0 | |
| L 749 | L3-17 | DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF COUNTERS | 0 | 0 | 0 | |
| L 750 | L3-18 | DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS | 0 | 0 | 0 | |
| L 751 | L3-19 | DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTING FLIP-FLOPS | 0 | 0 | 0 | |
| L 752 | L3-20 | DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER | 0 | 0 | 0 | |
| L 753 | L3-21 | DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT PULSES FOR OTHER TYPES OF COUNTERS | 0 | 0 | 0 | |
| L 754 | L3-22 | DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF DECADE COUNTERS | 0 | 0 | 0 | |
| L 755 | L3-23 | DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING COUNTERS FOR SPECIFIC INPUT PULSES | 0 | 0 | 0 | |
| L 756 | L3-24 | DO YOU DETERMINE THE APPROPRIATE AND GATE NECESSARY IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT | 0 | 0 | 0 | |
| M 757 | M1-01 | DO YOU WORK WITH SAWTOOTH WAVE GENERATORS | 0 | 0 | 0 | |
| M 758 | M1-02 | DO YOU WORK WITH TRIANGULAR WAVE GENERATORS | 0 | 0 | 0 | |
| M 759 | M1-03 | DO YOU WORK WITH PULSED OSCILLATORS WITH REGENERATIVE FEEDBACK | 0 | 0 | 0 | TIMING CIRCUITS |
| M 760 | M1-04 | DO YOU WORK WITH PULSED OSCILLATORS WITHOUT REGENERATIVE FEEDBACK | 0 | 0 | 0 | |

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-ISK

SPC SPC
076 077

| | | | |
|---|----|----|-----------------------|
| M 761 M1-05 DO YOU WORK WITH BLOCKING OSCILLATORS | 0 | 0 | 0 |
| M 762 M1-06 DO YOU USE OR REFER TO RISE TIME | 0 | 0 | 0 |
| M 763 M1-07 DO YOU USE OR REFER TO FALL OR FLYBACK TIME | 0 | 0 | 0 |
| M 764 M1-08 DO YOU USE OR REFER TO SWEEP TIME | 0 | 0 | 0 |
| M 765 M1-09 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH WAVEFORMS | 0 | 0 | 0 |
| M 766 M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH WAVEFORMS | 0 | 0 | 0 |
| M 767 M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH WAVEFORMS | 0 | 0 | 0 |
| M 768 M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH WAVEFORMS | 0 | 0 | 0 |
| M 769 M2-01 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB | 0 | 0 | 0 |
| M 770 M2-02 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL GENERATORS | 0 | 0 | 0 |
| M 771 M2-03 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL GENERATORS | 0 | 0 | 0 |
| M 772 M2-04 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY WHILE USING SIGNAL GENERATORS | 0 | 0 | 0 |
| M 773 M2-05 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE COMPONENT WHILE USING SIGNAL GENERATORS | 0 | 0 | 0 |
| M 774 M2-06 DO YOU USE AUDIO SINE-WAVE GENERATORS | 0 | 0 | 0 |
| M 775 M2-07 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE | 0 | 0 | 0 |
| M 776 M2-08 DO YOU USE RF GENERATORS LESS THAN 1,000 MH | 0 | 0 | 0 |
| M 777 M2-09 DO YOU USE RF GENERATORS GREATER THAN 1,000 MH | 0 | 0 | 0 |
| M 778 M2-10 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION GENERATORS | 0 | 0 | 0 |
| M 779 M3-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS OR GENERATORS | 33 | 33 | |
| M 780 M3-02 DO YOU INSPECT MOTORS | 15 | 15 | MOTORS AND GENERATORS |
| M 781 M3-03 DO YOU CLEAN OR LUBRICATE MOTORS | 24 | 24 | |
| M 782 M3-04 DO YOU OPERATE MOTORS | 15 | 15 | |
| M 783 M3-05 DO YOU REMOVE OR REPLACE COMPLETE MOTORS | 27 | 27 | |
| M 784 M3-06 DO YOU REMOVE OR REPLACE MOTOR PARTS | 0 | 0 | |
| M 785 M3-07 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF MOTORS | 30 | 30 | |
| M 786 M3-08 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS | 0 | 0 | |
| M 787 M3-09 DO YOU PERFORM ANY TASKS ON FIELD COILS | 0 | 0 | |
| M 788 M3-10 DO YOU PERFORM ANY TASKS ON ARMATURES | 0 | 0 | |
| M 789 M3-11 DO YOU PERFORM ANY TASKS ON ROTORS | 0 | 0 | |
| M 790 M3-12 DO YOU PERFORM ANY TASKS ON BRUSHES | 0 | 0 | |
| M 791 M3-13 DO YOU PERFORM ANY TASKS ON SLIP RINGS | 0 | 0 | |
| M 792 M3-14 DO YOU PERFORM ANY TASKS ON COMMUTATORS | 0 | 0 | |
| M 793 M3-15 DO YOU PERFORM ANY TASKS ON POLE PIECES | 0 | 0 | |

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSM

SPC SPC
076 077

| | | |
|--|----|----|
| M 794 M3-16 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OF THE FORCE OR TORQUE CREATED BY A MOTOR | 0 | 0 |
| M 795 M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR | 3 | 3 |
| M 796 M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS | 0 | 0 |
| M 797 M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS | 0 | 0 |
| M 798 M3-20 DO YOU WORK WITH INDUCTION MOTORS | 15 | 15 |
| M 799 M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS | 15 | 15 |
| M 800 M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS | 18 | 18 |
| M 801 M3-23 DO YOU INSPECT GENERATORS | 0 | 0 |
| M 802 M3-24 DO YOU CLEAN OR LUBRICATE GENERATORS | 0 | 0 |
| M 803 M3-25 DO YOU OPERATE GENERATORS | 0 | 0 |
| M 804 M3-26 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS | 0 | 0 |
| M 805 M3-27 DO YOU REMOVE OR REPLACE GENERATOR PARTS | 0 | 0 |
| M 806 M3-28 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS OF GENERATORS | 0 | 0 |
| M 807 M3-29 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF GENERATORS | 0 | 0 |
| N 808 N1-01 DO YOU WORK WITH METERS IN YOUR PRESENT JOB | 24 | 24 |
| N 809 N1-02 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF PERMANENT MAGNETS | 0 | 0 |
| N 810 N1-03 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF MOVING COILS | 0 | 0 |
| N 811 N1-04 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF SPIRAL SPRINGS | 0 | 0 |
| N 812 N1-05 DO YOU READ METER SCALES | 27 | 27 |
| N 813 N1-06 DO YOU EXTEND THE RANGE OF AMMETERS | 9 | 9 |
| N 814 N1-07 DO YOU ZERO OHMMETERS | 27 | 27 |
| N 815 N1-08 DO YOU ZERO AMMETERS | 15 | 15 |
| N 816 N1-09 DO YOU EXTEND THE RANGE OF VOLTMETERS | 9 | 9 |
| N 817 N1-10 DO YOU USE OR REFER TO VOLTMETER SENSITIVITY (EXPRESSED IN UNITS OF OHMS PER VOLT) | 3 | 3 |
| N 818 N2-01 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC AMPLIFIERS IN YOUR PRESENT JOB | 0 | 0 |
| N 819 N2-02 DO YOU INSPECT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS | 0 | 0 |
| N 820 N2-03 DO YOU CLEAN MAGNETIC AMPLIFIERS OR SATURABLE REACTORS | 0 | 0 |
| N 821 N2-04 DO YOU ADJUST MAGNETIC AMPLIFIERS OR SATURABLE REACTORS | 0 | 0 |
| N 822 N2-05 DO YOU TROUBLESHOOT MAGNETIC AMPLIFIERS OR SATURABLE REACTORS | 0 | 0 |
| N 823 N2-06 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR SATURABLE REACTORS | 0 | 0 |
| N 824 N2-07 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR SATURABLE REACTOR COMPONENTS | 0 | 0 |

METER MOVEMENTS

SATURABLE REACTORS
AND MAGNETIC
AMPLIFIERS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| | SPC | SPC |
|--|-----|-----|
| | 076 | 077 |
| DY-1SK | | |
| N 825 N2-08 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS | 0 | 0 |
| N 826 N2-09 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT | 0 | 0 |
| WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE REACTORS | | |
| N 827 N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE REACTORS | 0 | 0 |
| N 828 N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS | | |
| N 829 N2-12 DO YOU USE OR REFER TO COERCIVE FORCE IN SATURABLE REACTORS | 0 | 0 |
| N 830 N2-13 DO YOU USE OR REFER TO RESIDUAL MAGNETISM IN SATURABLE REACTORS | | |
| N 831 N2-14 DO YOU USE OR REFER TO FLUX DENSITY IN SATURABLE REACTORS | 0 | 0 |
| N 832 N2-15 DO YOU USE OR REFER TO POINT OF SATURATION IN SATURABLE REACTORS | 0 | 0 |
| N 833 N2-16 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC SYMBOLS | 0 | 0 |
| N 834 N3-01 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB | | |
| N 835 N3-02 DO YOU USE OR REFER TO TRANSIENT INTERVALS | 0 | 0 |
| N 836 N3-03 DO YOU USE OR REFER TO PULSE WIDTH (PW) | 0 | 0 |
| N 837 N3-04 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT) | 0 | 0 |
| N 838 N3-05 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF) | 0 | 0 |
| N 839 N3-06 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS | 0 | 0 |
| N 840 N3-07 DO YOU USE OR REFER TO INTEGRATING CIRCUITS | 0 | 0 |
| N 841 N3-08 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME CONSTANTS (TC) AS LONG, MEDIUM, OR SHORT | 0 | 0 |
| N 842 N3-09 DO YOU DETERMINE WHETHER AN LR OR RC CIRCUIT IS DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT AND OUTPUT CONFIGURATION | 0 | 0 |
| N 843 N3-10 DO YOU WORK WITH SQUARE WAVE GENERATORS | | |
| N 844 N3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATORS | 0 | 0 |
| O 845 01-01 DO YOU WORK ON SINGLE SIDEBAND SYSTEMS IN YOUR PRESENT JOB | | |
| O 846 01-02 DO YOU INSPECT SSB TRANSMIT OR RECEIVE SYSTEMS | 0 | 0 |
| O 847 01-03 DO YOU CLEAN SSB TRANSMIT OR RECEIVE SYSTEMS | 0 | 0 |
| O 848 01-04 DO YOU ALIGN SSB TRANSMIT OR RECEIVE SYSTEMS | 0 | 0 |
| O 849 01-05 DO YOU TROUBLESHOOT TO SSB TRANSMIT OR RECEIVE SYSTEMS | 0 | 0 |
| O 850 01-06 DO YOU TROUBLESHOOT TO SSB TRANSMIT OR RECEIVE COMPONENTS | | |
| O 851 01-07 DO YOU REMOVE OR REPLACE SSB TRANSMIT OR RECEIVE SYSTEMS | 0 | 0 |
| O 852 01-08 DO YOU REMOVE OR REPLACE SSB TRANSMIT OR RECEIVE COMPONENTS | 0 | 0 |

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| | DY-TSK | SPC | SPC |
|---|--------|-----|-----|
| | | 076 | 077 |
| 0 853 01-09 DO YOU PERFORM TASKS ON SSB AUDIO AMPLIFIERS | | 0 | 0 |
| 0 854 01-10 DO YOU PERFORM TASKS ON SSB BALANCED MODULATORS | | 0 | 0 |
| 0 855 01-11 DO YOU PERFORM TASKS ON SSB CARRIER OSCILLATORS | | 0 | 0 |
| 0 856 01-12 DO YOU PERFORM TASKS ON SSB LC FILTERS | | 0 | 0 |
| 0 857 01-13 DO YOU PERFORM TASKS ON SSB CRYSTAL FILTERS | | 0 | 0 |
| 0 858 01-14 DO YOU PERFORM TASKS ON SSB MECHANICAL FILTERS | | 0 | 0 |
| 0 859 01-15 DO YOU PERFORM TASKS ON SSB OSCILLATORS | | 0 | 0 |
| 0 860 01-16 DO YOU PERFORM TASKS ON SSB MIXERS | | 0 | 0 |
| 0 861 01-17 DO YOU PERFORM TASKS ON SSB DRIVERS | | 0 | 0 |
| 0 862 01-18 DO YOU PERFORM TASKS ON SSB POWER AMPLIFIERS | | 0 | 0 |
| 0 863 01-19 DO YOU PERFORM TASKS ON SSB RF AMPLIFIERS | | 0 | 0 |
| 0 864 01-20 DO YOU PERFORM TASKS ON SSB FREQUENCY CONVERTERS | | 0 | 0 |
| 0 865 01-21 DO YOU PERFORM TASKS ON SSB IF AMPLIFIERS | | 0 | 0 |
| 0 866 01-22 DO YOU PERFORM TASKS ON SSB DEMODULATORS | | 0 | 0 |
| 0 867 01-23 DO YOU PERFORM TASKS ON SSB DON'T REMEMBER WHICH SSR | | 0 | 0 |
| SYSTEM STAGES | | | |
| 0 868 01-24 DO YOU USE OR REFER TO SELECTIVE FADING | | 0 | 0 |
| 0 869 01-25 DO YOU USE OR REFER TO PEAK POWER | | 0 | 0 |
| 0 870 01-26 DO YOU USE OR REFER TO FREQUENCY STABILITY | | 0 | 0 |
| 0 871 01-27 DO YOU USE OR REFER TO RESPONSE CURVES FOR | | 0 | 0 |
| RANDWIDTH FILTERS | | | |
| 0 872 01-28 DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF SSB | | 0 | 0 |
| TRANSMITTERS | | | |
| 0 873 01-29 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB | | 0 | 0 |
| TRANSMITTER SCHEMATIC DIAGRAMS | | | |
| 0 874 01-30 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB | | 0 | 0 |
| RECEIVER SCHEMATIC DIAGRAMS | | | |
| 0 875 02-01 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR | | 0 | 0 |
| PRESENT JOB | | | |
| 0 876 02-02 DO YOU INSPECT PULSE MODULATION SYSTEMS | | 0 | 0 |
| 0 877 02-03 DO YOU CLEAN PULSE MODULATION SYSTEMS | | 0 | 0 |
| 0 878 02-04 DO YOU ALIGN PULSE MODULATION SYSTEMS | | 0 | 0 |
| 0 879 02-05 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS | | 0 | 0 |
| 0 880 02-06 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM | | 0 | 0 |
| COMPONENTS | | | |
| 0 881 02-07 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS | | 0 | 0 |
| 0 882 02-08 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM | | 0 | 0 |
| COMPONENTS | | | |
| 0 883 02-09 DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM) | | 0 | 0 |
| SYSTEMS | | | |
| 0 884 02-10 DO YOU WORK ON PULSE-DURATION MODULATION (PDM) | | 0 | 0 |
| SYSTEMS | | | |
| 0 885 02-11 DO YOU WORK ON PULSE-POSITION MODULATION (PPM) | | 0 | 0 |
| SYSTEMS | | | |
| 0 886 02-12 DO YOU WORK ON PULSE-CODE MODULATION (PCM) SYSTEMS | | 0 | 0 |
| 0 887 02-13 DO YOU WORK ON LINE PULSING MODULATION SYSTEMS | | 0 | 0 |
| 0 888 02-14 DO YOU WORK ON DON'T REMEMBER WHICH TYPE OF | | 0 | 0 |
| MODULATION SYSTEM | | | |

PCT MARS RESPONDING *YES* BY SELECTED GRPS

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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| | | NY-TSM | | SPC SPC | |
|-------|---|--------|----|---------|----|
| | | 076 | | 077 | |
| 0 889 | 02-15 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 890 | POWER SUPPLIES | 0 | 0 | 0 | 0 |
| 0 890 | 02-16 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 891 | CHARGING CHOKES AND CHARGING DIODES | 0 | 0 | 0 | 0 |
| 0 891 | 02-17 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 892 | PULSE FORMING NETWORKS | 0 | 0 | 0 | 0 |
| 0 892 | 02-18 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 893 | TIMERS | 0 | 0 | 0 | 0 |
| 0 893 | 02-19 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 894 | SWITCHES SUCH AS GAS THYRATRON | 0 | 0 | 0 | 0 |
| 0 894 | 02-20 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 895 | PULSE TRANSFORMERS | 0 | 0 | 0 | 0 |
| 0 895 | 02-21 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 896 | TRANSMITTER TUBES | 0 | 0 | 0 | 0 |
| 0 896 | 02-22 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF | 0 | 0 | 0 | 0 |
| 0 897 | AMPLIFIERS | 0 | 0 | 0 | 0 |
| 0 897 | 02-23 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 898 | FREQUENCY CONVERTERS | 0 | 0 | 0 | 0 |
| 0 898 | 02-24 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 899 | IF AMPLIFIERS | 0 | 0 | 0 | 0 |
| 0 899 | 02-25 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 900 | DETECTORS | 0 | 0 | 0 | 0 |
| 0 900 | 02-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 901 | VIDEO AMPLIFIERS | 0 | 0 | 0 | 0 |
| 0 901 | 02-27 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 902 | POWER VIDEO AMPLIFIERS | 0 | 0 | 0 | 0 |
| 0 902 | 02-28 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM | 0 | 0 | 0 | 0 |
| 0 903 | DON'T REMEMBER WHICH PULSE MODULATION SYSTEM STAGES | 0 | 0 | 0 | 0 |
| 0 903 | 02-29 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF) | 0 | 0 | 0 | 0 |
| 0 904 | 02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT) | 0 | 0 | 0 | 0 |
| 0 905 | 02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW) | 0 | 0 | 0 | 0 |
| 0 906 | 02-32 DO YOU USE OR REFER TO PULSE SHAPE | 0 | 0 | 0 | 0 |
| 0 907 | 02-33 DO YOU USE OR REFER TO PEAK POWER | 0 | 0 | 0 | 0 |
| 0 908 | 02-34 DO YOU USE OR REFER TO AVERAGE POWER | 0 | 0 | 0 | 0 |
| 0 909 | 02-35 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF) | 0 | 0 | 0 | 0 |
| 0 910 | 02-36 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE RECURRENCE FREQUENCY (PRF) | 0 | 0 | 0 | 0 |
| 0 911 | 02-37 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR | 0 | 0 | 0 | 0 |
| 0 912 | PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS | 0 | 0 | 0 | 0 |
| 0 912 | 02-38 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION TRANSMITTER SCHEMATIC DIAGRAMS | 0 | 0 | 0 | 0 |
| 0 913 | 02-39 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE MODULATION RECEIVER SCHEMATIC DIAGRAMS | 0 | 0 | 0 | 0 |
| 0 914 | 03-01 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB | 30 | 30 | 30 | 30 |
| 0 915 | 03-02 DO YOU INSPECT ANTENNAS | 33 | 33 | 33 | 33 |

ANTENNAS

PCT MARRS RESPONDING 'YES' BY SELECTED GRPS
TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

GPSUM4 PAGE 33

DY-TSK

SPC SPC
076 077

| | | |
|---|----|----|
| 0 916 03-03 DO YOU CLEAN ANTENNAS | 27 | 27 |
| 0 917 03-04 DO YOU PHYSICALLY ALIGN ANTENNAS | 3 | 3 |
| 0 918 03-05 DO YOU ELECTRICALLY ALIGN ANTENNAS | 0 | 0 |
| 0 919 03-06 DO YOU TROUBLESHOOT TO ANTENNAS | 15 | 15 |
| 0 920 03-07 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS | 27 | 27 |
| 0 921 03-08 DO YOU REMOVE OR INSTALL ANTENNAS | 15 | 15 |
| 0 922 03-09 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS | 30 | 30 |
| 0 923 03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF E OR ELECTRIC FIELD LINES | 0 | 0 |
| 0 924 03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING REPRESENTATIONS OF H OR MAGNETIC FIELD LINES | 0 | 0 |
| 0 925 03-12 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS | 0 | 0 |
| 0 926 03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS INDUCTIVE LOADS TO THE GENERATOR | 0 | 0 |
| 0 927 03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS TO THE GENERATOR | 0 | 0 |
| 0 928 03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS TO THE GENERATOR | 0 | 0 |
| 0 929 03-16 DO YOU WORK WITH HERTZ ANTENNAS | 0 | 0 |
| 0 930 03-17 DO YOU WORK WITH MARCONI ANTENNAS | 0 | 0 |
| 0 931 03-18 DO YOU WORK WITH BROADSIDE ARRAYS | 0 | 0 |
| 0 932 03-19 DO YOU WORK WITH END-FIRE ARRAYS | 0 | 0 |
| 0 933 03-20 DO YOU WORK WITH CAPTIVOID ARRAYS | 0 | 0 |
| 0 934 03-21 DO YOU WORK WITH COLLINER ARRAYS | 0 | 0 |
| 0 935 03-22 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC INDUCTION FIELDS WHEN WORKING WITH ANTENNAS | 0 | 0 |
| 0 936 03-23 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF ANTENNAS | 0 | 0 |
| 0 937 03-24 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC RADIATION FIELDS WHEN WORKING WITH ANTENNAS | 12 | 12 |
| 0 938 03-25 DO YOU MEASURE ELECTROMAGNETIC RADIATION FIELDS OF ANTENNAS | 0 | 0 |
| 0 939 03-26 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION | 0 | 0 |
| 0 940 03-27 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E) AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD | 0 | 0 |
| 0 941 03-28 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY POLARIZED | 0 | 0 |
| 0 942 03-29 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY POLARIZED | 0 | 0 |
| 0 943 03-30 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS YOU WORK ON | 0 | 0 |
| 0 944 03-31 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS NECESSARY TO CONSTRUCT, ANTENNAS OF CORRECT LENGTH FOR SPECIFIC WAVELENGTHS | 0 | 0 |

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| | SPC | SPC |
|---|-----|-----|
| | 076 | 077 |
| 0 945 03-32 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS | 0 | 0 |
| 0 946 03-33 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS DIRECTORS | 0 | 0 |
| 0 947 03-34 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC ELEMENTS SERVING AS REFLECTORS | 0 | 0 |
| 0 948 03-35 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN DON'T REMEMBER WHAT KIND OF ELEMENTS | 9 | 9 |
| 0 949 03-36 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS | 0 | 0 |
| 0 950 03-37 DO YOU WORK ON BIDIRECTIONAL ANTENNAS | 0 | 0 |
| 0 951 03-38 DO YOU WORK ON DON'T REMEMBER THE DIRECTIONALITY | 12 | 12 |
| 0 952 03-39 DO YOU WORK WITH ROTAR ANTENNA ARRAYS | 0 | 0 |
| P 953 P1-01 IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION LINES (TRANSMISSION LINES ARE DEFINED TO INCLUDE LEADS BETWEEN RECEIVERS AND ANTENNAS, TELEPHONE LEADS, AS WELL AS HIGH VOLTAGE POWER LINES, ETC. DO NOT CONSIDER WAVEGUIDES AS TRANSMISSION LINES) | 0 | 0 |
| P 954 P1-02 DO YOU REFER TO OR USE COPPER LOSS OR IZR LOSS IN TRANSMISSION LINES | 0 | 0 |
| P 955 P1-03 DO YOU REFER TO OR USE SKIN EFFECTS OF HIGH FREQUENCY CURRENTS IN TRANSMISSION LINES | 0 | 0 |
| P 956 P1-04 DO YOU REFER TO OR USE RADIATION LOSS IN TRANSMISSION LINES | 0 | 0 |
| P 957 P1-05 DO YOU USE OR REFER TO DIELECTRIC LOSS IN TRANSMISSION LINES | 0 | 0 |
| P 958 P1-06 DO YOU USE OR REFER TO LEAKAGE LOSSES IN TRANSMISSION LINES | 0 | 0 |
| P 959 P1-07 DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES | 0 | 0 |
| P 960 P1-08 DO YOU WORK WITH TWIN LEAD TRANSMISSION LINES | 0 | 0 |
| P 961 P1-09 DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES | 0 | 0 |
| P 962 P1-10 DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION LINES | 0 | 0 |
| P 963 P1-11 DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION LINES | 0 | 0 |
| P 964 P1-12 DO YOU TROUBLESHOOT TRANSMISSION LINES | 0 | 0 |
| P 965 P1-13 DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION (OPEN, SHORTED, CAPACITIVE, INDUCTIVE) | 0 | 0 |
| P 966 P1-14 DO YOU SELECT APPROPRIATE TRANSMISSION LINES TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS | 0 | 0 |
| P 967 P1-15 DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS | 0 | 0 |
| P 968 P1-16 DO YOU MEASURE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES | 0 | 0 |
| P 969 P1-17 DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF TRANSMISSION LINES | 0 | 0 |
| P 970 P1-18 DO YOU PERFORM THE CALCULATIONS NECESSARY TO DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH MATCHING TRANSFORMERS TO MATCH TRANSMISSION LINES TO LOADS | 0 | 0 |

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSM

SPC SPC
076 077

P 971 P1-19 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING MATCHING TRANSFORMERS 0 0
P 972 P1-20 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING DELTA MATCHING 0 0
P 973 P1-21 DO YOU SELECT THE TYPE OF TRANSMISSION LINE NEEDED FOR PARTICULAR JOBS WITHOUT REFERRING TO TECHNICAL DATA 0 0
P 974 P1-22 DO YOU USE OR REFER TO THE TERM CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES 0 0
P 975 P1-23 DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z0) OF TRANSMISSION LINES 0 0
P 976 P1-24 DO YOU USE OR REFER TO THE TERM CUTOFF FREQUENCY OF TRANSMISSION LINES 0 0
P 977 P1-25 DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (K) OF TRANSMISSION LINES 0 0
P 978 P1-26 DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION LINES FOR PARTICULAR FREQUENCIES 0 0
P 979 P1-27 DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR ELECTRICAL LENGTH FOR GIVEN FREQUENCIES 0 0
P 980 P1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF TRANSMISSION LINES REMAIN CONSTANT, THE ELECTRICAL LENGTH INCREASES 0 0
P 981 P1-29 DO YOU WORK WITH NONRESONANT (FLAT) TRANSMISSION LINES 0 0
P 982 P1-30 DO YOU WORK WITH RESONANT TRANSMISSION LINES 0 0
P 983 P1-31 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED TO LOADS USING STUB MATCHING 0 0
P 984 P2-01 DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN YOUR PRESENT JOB 0 0
P 985 P2-02 DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS 0 0
P 986 P2-03 DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS 0 0
P 987 P2-04 DO YOU BEND WAVEGUIDES OR CAVITY RESONATORS 0 0
P 988 P2-05 DO YOU TWIST WAVEGUIDES OR CAVITY RESONATORS 0 0
P 989 P2-06 DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS 0 0
P 990 P2-07 DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS 0 0
P 991 P2-08 DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS 0 0
P 992 P2-09 DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDES 0 0
P 993 P2-10 DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS 0 0
P 994 P2-11 DO YOU REMOVE OR INSTALL DUMMY LOADS 0 0
P 995 P2-12 DO YOU REMOVE OR INSTALL E BENDS 0 0
P 996 P2-13 DO YOU REMOVE OR INSTALL H BENDS 0 0
P 997 P2-14 DO YOU REMOVE OR INSTALL OTHER BENDS 0 0
P 998 P2-15 DO YOU REMOVE OR INSTALL CHOKE JOINTS 0 0
P 999 P2-16 DO YOU REMOVE OR INSTALL ROTATING JOINTS 0 0
P1000 P2-17 DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS 0 0
P1001 P2-18 DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS 0 0
P1002 P2-19 DO YOU USE OR REFER TO >A) WALL OF WAVEGUIDES 0 0

WAVEGUIDES AND
CAVITY RESONATORS

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSM

SPC SPC
C76 077

P1003 P2-20 DO YOU USE OR REFER TO >B> WALL OF WAVEGUIDES 0 0 0
P1004 P2-21 DO YOU USE OR REFER TO CUTOFF FREQUENCY OF WAVEGUIDES 0 0 0
P1005 P2-22 DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF WAVEGUIDES 0 0 0
P1006 P2-23 DO YOU USE OR REFER TO POWER-DETERMINING WALL OF WAVEGUIDES 0 0 0
P1007 P2-24 DO YOU USE OR REFER TO ELECTRIC FIELD BOUNDARY CONDITIONS 0 0 0
P1008 P2-25 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY CONDITIONS 0 0 0
P1009 P2-26 DO YOU USE OR REFER TO DUPLEXER FIELD BOUNDARY CONDITIONS 0 0 0
P1010 P2-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST WAVEGUIDES ARE MADE WITH A >B> WALL SIZE OF .7 WAVELENGTHS OF THE OPERATING FREQUENCY 0 0 0
P1011 P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST >A> WALLS RANGE FROM .2 TO .5 WAVELENGTHS IN SIZE, WITH .35 USED AS AN AVERAGE 0 0 0
P1012 P2-29 ARE YOU CONCERNED WITH THE MATERIAL (SUCH AS BRASS) WHICH WAVEGUIDES ARE MADE OF 0 0 0
P1013 P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC INSTALLATION 0 0 0
P1014 P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE DIRECTION OF PROPAGATION, DIRECTION OF >E> FIELD, OR DIRECTION OF >H> FIELD IN WAVEGUIDES 0 0 0
P1015 P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK >E> OR >H> LINES IN WAVEGUIDES 0 0 0
P1016 P2-33 DO YOU MEASURE THE TIME PHASE OF >E> OR >H> LINES IN WAVEGUIDES 0 0 0
P1017 P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF >E> OR >H> LINES IN WAVEGUIDES 0 0 0
P1018 P2-35 ARE HIGH POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH 0 0 0
P1019 P2-36 ARE LOW POWER PROBES USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH 0 0 0
P1020 P2-37 ARE LOOPS USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH 0 0 0
P1021 P2-38 ARE APERTURES (WINDOWS OR IRISES) USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH 0 0 0
P1022 P2-39 ARE DON'T REMEMBER THE KIND OF ENERGY COUPLING USED ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH 0 0 0
P1023 P2-40 DO YOU DETERMINE WHERE PROBES SHOULD BE MOUNTED IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO TECHNICAL DATA 0 0 0
P1024 P2-41 DO YOU DETERMINE THE POSITIONING OF LOOPS IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO TECHNICAL DATA 0 0 0

PCT MRRS RESPONDING 'YES' BY SELECTED GRPS
 TASK GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

GY-TSM

SPC SPC
 076 077

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|-------|--|---|---|--------------------------------------|
| P1025 | P2-42 DO YOU DETERMINE THE POSITIONING OR SIZE OF APERTURES IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO TECHNICAL DATA | 0 | 0 | |
| P1026 | P2-43 ARE CHOKES JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH | 0 | 0 | |
| P1027 | P2-44 ARE ROTATING JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH | 0 | 0 | |
| P1028 | P2-45 ARE DON'T REMEMBER THE KIND OF JOINTS USED IN WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH | 0 | 0 | |
| P1029 | P2-46 DO YOU TUNE CAVITY RESONATORS USING CAPACITIVE TUNING | 0 | 0 | |
| P1030 | P2-47 DO YOU TUNE CAVITY RESONATORS USING INDUCTIVE TUNING | 0 | 0 | |
| P1031 | P2-48 DO YOU TUNE CAVITY RESONATORS USING VOLUME TUNING | 0 | 0 | |
| P1032 | P2-49 DO YOU TUNE CAVITY RESONATORS USING DON'T REMEMBER THE METHOD OF TUNING | 0 | 0 | |
| P1033 | P2-50 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY RESONATORS | 0 | 0 | |
| P1034 | P3-01 IN YOUR PRESENT JOB DO YOU WORK WITH KLYSTRONS, TRAVELING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR MAGNETRONS | 0 | 0 | MICROWAVE AMPLIFIERS AND OSCILLATORS |
| P1035 | P3-02 DO YOU USE OR REFER TO INTERELECTRODE CAPACITANCE | 0 | 0 | |
| P1036 | P3-03 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME | 0 | 0 | |
| P1037 | P3-04 DO YOU USE OR REFER TO LEAD INDUCTANCE | 0 | 0 | |
| P1038 | P3-05 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL CIRCUITRY | 0 | 0 | |
| P1039 | P3-06 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY MODULATION | 0 | 0 | |
| P1040 | P3-07 DO YOU USE OR REFER TO ELECTRON BUNCHING | 0 | 0 | |
| P1041 | P3-08 DO YOU WORK WITH TWO-CAVITY KLYSTRONS | 0 | 0 | |
| P1042 | P3-09 DO YOU WORK WITH THREE-CAVITY KLYSTRONS | 0 | 0 | |
| P1043 | P3-10 DO YOU WORK WITH REFLEX KLYSTRONS | 0 | 0 | |
| P1044 | P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT) | 0 | 0 | |
| P1045 | P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC AMPLIFIERS | 0 | 0 | |
| P1046 | P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS | 0 | 0 | |
| P1047 | P3-14 DO YOU WORK WITH MAGNETRONS | 0 | 0 | |
| P1048 | P3-15 DO YOU INSPECT KLYSTRONS OR TWT | 0 | 0 | |
| P1049 | P3-16 DO YOU CLEAN KLYSTRONS OR TWT | 0 | 0 | |
| P1050 | P3-17 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY | 0 | 0 | |
| P1051 | P3-18 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY | 0 | 0 | |
| P1052 | P3-19 DO YOU PERFORM OPERATIONAL CHECKS OF KLYSTRONS OR TWT | 0 | 0 | |
| P1053 | P3-20 DO YOU TROUBLESHOOT KLYSTRONS OR TWT | 0 | 0 | |
| P1054 | P3-21 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRON OR TWT | 0 | 0 | |
| P1055 | P3-22 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS | 0 | 0 | |
| P1056 | P3-23 DO YOU INSPECT PARAMETRIC AMPLIFIERS | 0 | 0 | |
| P1057 | P3-24 DO YOU CLEAN PARAMETRIC AMPLIFIERS | 0 | 0 | |
| P1058 | P3-25 DO YOU ADJUST PARAMETRIC AMPLIFIERS | 0 | 0 | |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| | SPC | SPC |
|---|-----|-----|
| | 076 | 077 |
| DI-TSM | | |
| P1059 P3-26 DO YOU TUNE PARAMETRIC AMPLIFIERS | 0 | 0 |
| P1060 P3-27 DO YOU PERFORM OPERATIONAL CHECKS OF PARAMETRIC AMPLIFIERS | 0 | 0 |
| P1061 P3-28 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS | 0 | 0 |
| P1062 P3-29 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC AMPLIFIER | 0 | 0 |
| P1063 P3-30 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER COMPONENTS | 0 | 0 |
| P1064 P3-31 DO YOU INSPECT MAGNETRONS | 0 | 0 |
| P1065 P3-32 DO YOU CLEAN MAGNETRONS | 0 | 0 |
| P1066 P3-33 DO YOU ADJUST MAGNETRONS | 0 | 0 |
| P1067 P3-34 DO YOU TUNE MAGNETRONS | 0 | 0 |
| P1068 P3-35 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS | 0 | 0 |
| P1069 P3-36 DO YOU TROUBLESHOOT MAGNETRONS | 0 | 0 |
| P1070 P3-37 DO YOU REMOVE OR REPLACE COMPLETE MAGNETRON | 0 | 0 |
| P1071 P3-38 DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS | 0 | 0 |
| P1072 P3-39 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS COLLECTOR PLATES | 0 | 0 |
| P1073 P3-40 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATCHER CAVITIES | 0 | 0 |
| P1074 P3-41 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATCHER GRIDS | 0 | 0 |
| P1075 P3-42 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS FEEDBACK LOOPS | 0 | 0 |
| P1076 P3-43 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS DRIFT SPACES | 0 | 0 |
| P1077 P3-44 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS BUNCHER GRIDS | 0 | 0 |
| P1078 P3-45 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS BUNCHER CAVITIES | 3 | 3 |
| P1079 P3-46 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CONTROL GRIDS | 0 | 0 |
| P1080 P3-47 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TWO-CAVITY KLYSTRONS CATHODES | 0 | 0 |
| P1081 P3-48 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON REPELLER (REFLECTORY) PLATES | 0 | 0 |
| P1082 P3-49 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRIDS | 0 | 0 |
| P1083 P3-50 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON GRID CAVITY GAPS | 0 | 0 |
| P1084 P3-51 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON RESONANT CAVITIES | 0 | 0 |
| P1085 P3-52 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON MAGNETIC COUPLING LOOPS | 0 | 0 |
| P1086 P3-53 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON FILAMENTS | 0 | 0 |
| P1087 P3-54 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON CATHODES | 0 | 0 |

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-1SK

SPC SPC
076 077

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|-------|--|---|---|
| P1088 | P3-55 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF REFLEX KLYSTRON OUTPUT LEADS | 0 | 0 |
| P1089 | P3-56 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES FILAMENTS | 0 | 0 |
| P1090 | P3-57 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES CATHODES | 0 | 0 |
| P1091 | P3-58 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES MODULATOR GRIDS | 0 | 0 |
| P1092 | P3-59 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES ANODES | 0 | 0 |
| P1093 | P3-60 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES HELIXES | 0 | 0 |
| P1094 | P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES COLLECTORS | 0 | 0 |
| P1095 | P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES MAGNETS | 0 | 0 |
| P1096 | P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF TRAVELLING-WAVE TUBES ATTENUATORS | 0 | 0 |
| P1097 | P3-64 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE CIRCULATORS | 0 | 0 |
| P1098 | P3-65 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER SIGNAL CAVITIES | 0 | 0 |
| P1099 | P3-66 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER IDLER CAVITIES | 0 | 0 |
| P1100 | P3-67 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER VARACTOR DIODES | 0 | 0 |
| P1101 | P3-68 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE ISOLATORS | 0 | 0 |
| P1102 | P3-69 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER REVERSE-BIAS BATTERIES | 0 | 0 |
| P1103 | P3-70 DO YOU PERFORM TASKS ON ANODES | 0 | 0 |
| P1104 | P3-71 DO YOU PERFORM TASKS ON ANODE COOLING PINS | 0 | 0 |
| P1105 | P3-72 DO YOU PERFORM TASKS ON COUPLING LOOPS | 0 | 0 |
| P1106 | P3-73 DO YOU PERFORM TASKS ON HEATER LEADS | 0 | 0 |
| P1107 | P3-74 DO YOU PERFORM TASKS ON RESONANT CAVITIES | 0 | 0 |
| P1108 | P3-75 DO YOU PERFORM TASKS ON CATHODES | 0 | 0 |
| P1109 | P3-76 DO YOU PERFORM TASKS ON MAGNETS | 0 | 0 |
| P1110 | Q1-01 DO YOU USE OR REFER TO STORAGE REGISTERS | 0 | 0 |
| P1111 | Q1-02 DO YOU USE OR REFER TO SHIFT REGISTERS | 0 | 0 |
| P1112 | Q1-03 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT REGISTERS | 0 | 0 |
| P1113 | Q1-04 DO YOU USE OR REFER TO LOGIC SYMBOLS OF STORAGE REGISTERS | 0 | 0 |
| P1114 | Q1-05 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF SHIFT REGISTERS | 0 | 0 |
| P1115 | Q1-06 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF OTHER TYPE OF REGISTERS | 0 | 0 |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

0Y-TSM

SPC SPC
076 077

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|-------|--|---|---|------------------------------|
| Q1116 | Q1-07 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES HAVE PASSED | 0 | 0 | |
| Q1117 | Q2-01 DO YOU WORK WITH DIGITAL COUNTERS, REGISTERS, OR STORAGE DEVICES IN YOUR PRESENT JOB | 0 | 0 | |
| Q1118 | Q2-02 DO YOU USE OR REFER TO DELAY LINES | 0 | 0 | STORAGE DEVICES |
| Q1119 | Q2-03 DO YOU USE OR REFER TO MAGNETIC CORES | 0 | 0 | |
| Q1120 | Q2-04 DO YOU USE OR REFER TO MAGNETIC DRUMS | 0 | 0 | |
| Q1121 | Q2-05 DO YOU USE OR REFER TO MAGNETIC TAPES | 0 | 0 | |
| Q1122 | Q2-06 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OR MEMORY SYSTEMS | 0 | 0 | |
| Q1123 | Q2-07 DO YOU USE OR REFER TO WORD CAPACITY OF MEMORY SYSTEMS | 0 | 0 | |
| Q1124 | Q2-08 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS | 0 | 0 | |
| Q1125 | Q2-09 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES | 0 | 0 | |
| Q1126 | Q3-01 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS, ANALOG-TO-DIGITAL (A/D) CONVERTERS, OR BINARY-TO-DECIMAL READOUT CONVERTERS | 0 | 0 | DIGITAL TO ANALOG CONVERTERS |
| Q1127 | Q3-02 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT VOLTAGES | 0 | 0 | |
| Q1128 | Q3-03 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS IS DETERMINED BY ADDING THE DENOMINATORS OF THE RESISTORS | 0 | 0 | |
| Q1129 | Q3-04 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS | 0 | 0 | |
| Q1130 | Q3-05 DO YOU PERFORM SAMPLE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS | 0 | 0 | |
| Q1131 | Q3-06 DO YOU PERFORM HOLD FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS | 0 | 0 | |
| Q1132 | Q3-07 DO YOU PERFORM COMPARE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS | 0 | 0 | |
| Q1133 | Q3-08 DO YOU PERFORM DIGITIZE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS | 0 | 0 | |
| Q1134 | Q3-09 DO YOU PERFORM DON'T REMEMBER WHICH FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS | 0 | 0 | |
| Q1135 | Q3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS | 0 | 0 | |
| Q1136 | Q3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS | 0 | 0 | |
| Q1137 | Q3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS | 0 | 0 | |
| Q1138 | Q3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS | 0 | 0 | |
| Q1139 | Q3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS | 0 | 0 | |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS
TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

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0Y-1SK

SPC SPC
076 077

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|---|---|---|---|---|
| R1140 R1-01 DO YOU WORK WITH PHANTASTRON CIRCUITRY IN YOUR PRESENT JOB | 0 | 0 | 0 | PHANTASTRONS |
| R1141 R2-01 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER CIRCUITS | 0 | 0 | 0 | |
| R1142 R2-02 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER SCHEMATIC DIAGRAMS | 0 | 0 | 0 | SCHMITT TRIGGERS |
| R1143 R2-03 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS | 0 | 0 | 0 | |
| R1144 R3-01 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR CABLES | 0 | 0 | 0 | CABLE FABRICATION |
| R1145 R3-02 DO YOU FABRICATE COAXIAL CABLES | 0 | 0 | 0 | |
| R1146 R1-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS ON VISUAL READOUT SYSTEMS | 0 | 0 | 0 | |
| R1147 R1-02 DO YOU PERFORM ANY TASKS ON NIXIE LIGHTS OR NIXIE LIGHT DECODER SYSTEMS | 0 | 0 | 0 | INPUT/OUTPUT DEVICES |
| R1148 R1-03 DO YOU ANALYZE NIXIE LIGHT DECODER SYSTEMS USING BOOLEAN ALGEBRA | 0 | 0 | 0 | |
| S1149 S2-01 DO YOU WORK WITH PHOTO TUBES IN YOUR PRESENT JOB | 0 | 0 | 0 | PHOTO SENSITIVE DEVICES |
| S1150 S3-01 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS | 0 | 0 | 0 | |
| S1151 S3-02 DO YOU MEASURE EXCITATION FREQUENCIES | 0 | 0 | 0 | |
| S1152 S3-03 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIPS | 0 | 0 | 0 | |
| S1153 S3-04 DO YOU USE OR REFER TO EXCITATION FREQUENCIES | 0 | 0 | 0 | SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS) |
| S1154 S3-05 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE RELATIONSHIPS | 0 | 0 | 0 | |
| S1155 S3-06 DO YOU USE SERVOS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION | 0 | 0 | 0 | |
| S1156 S3-07 DO YOU USE DETECTORS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION | 0 | 0 | 0 | |
| S1157 S3-08 DO YOU USE ERROR SIGNAL DEVICES IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION | 0 | 0 | 0 | |
| S1158 S3-09 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION | 0 | 0 | 0 | |
| T1159 T1-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH INFRARED SYSTEMS | 0 | 0 | 0 | |
| T1160 T1-02 DO YOU INSPECT INFRARED SYSTEMS | 0 | 0 | 0 | |
| T1161 T1-03 DO YOU CLEAN INFRARED SYSTEMS | 0 | 0 | 0 | INFRARED |
| T1162 T1-04 DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS | 0 | 0 | 0 | |
| T1163 T1-05 DO YOU OPERATE INFRARED SYSTEMS | 0 | 0 | 0 | |
| T1164 T1-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF INFRARED SYSTEMS | 0 | 0 | 0 | |
| T1165 T1-07 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED SYSTEMS | 0 | 0 | 0 | |
| T1166 T1-08 DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM COMPONENT PARTS | 0 | 0 | 0 | |
| T1167 T1-09 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED SYSTEMS | 0 | 0 | 0 | |
| T1168 T1-10 DO YOU REMOVE OR REPLACE INFRARED SYSTEM COMPONENT PARTS | 0 | 0 | 0 | |

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSM

SPC SPC
076 077

| | | | | |
|---------------|-------|--|---|---|
| 11169 | 11-11 | DO YOU USE OR REFER TO FAR REGION | 0 | 0 |
| 11170 | 11-12 | DO YOU USE OR REFER TO INTERMEDIATE REGION | 0 | 0 |
| 11171 | 11-13 | DO YOU USE OR REFER TO NEAR REGION | 0 | 0 |
| 11172 | 11-14 | DO YOU USE OR REFER TO MICRON | 0 | 0 |
| 11173 | 11-15 | DO YOU USE OR REFER TO GRAY BODIES | 0 | 0 |
| 11174 | 11-16 | DO YOU USE OR REFER TO BLACK BODIES | 0 | 0 |
| 11175 | 11-17 | DO YOU USE OR REFER TO ABSORPTION | 0 | 0 |
| 11176 | 11-18 | DO YOU USE OR REFER TO SCATTERING | 0 | 0 |
| 11177 | 11-19 | DO YOU USE OR REFER TO ABSOLUTE ZERO | 0 | 0 |
| 11178 | 11-20 | DO YOU PERFORM TASKS ON BLITZ | 0 | 0 |
| 11179 | 11-21 | DO YOU PERFORM TASKS ON TARGET BUTTONS | 0 | 0 |
| 11180 | 11-22 | DO YOU PERFORM TASKS ON ERECTOR LENSES | 0 | 0 |
| 11181 | 11-23 | DO YOU PERFORM TASKS ON OCULAR LENSES | 0 | 0 |
| 11182 | 11-24 | DO YOU PERFORM TASKS ON CORRECTION LENSES | 0 | 0 |
| 11183 | 11-25 | DO YOU PERFORM TASKS ON FILTERS | 0 | 0 |
| 11184 | 11-26 | DO YOU PERFORM TASKS ON SPHERICAL MIRRORS | 0 | 0 |
| 11185 | 11-27 | DO YOU PERFORM TASKS ON PLANE MIRRORS | 0 | 0 |
| 11186 | 12-01 | DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH | 0 | 0 |
| LASERS | | | | |
| 11187 | 12-02 | DO YOU INSPECT LASER SYSTEMS | 0 | 0 |
| 11188 | 12-03 | DO YOU CLEAN LASER SYSTEMS | 0 | 0 |
| 11189 | 12-04 | DO YOU OPERATE LASER SYSTEMS | 0 | 0 |
| 11190 | 12-05 | DO YOU OPERATE LASER SYSTEMS | 0 | 0 |
| 11191 | 12-06 | DO YOU TROUBLESHOOT WIRE CONNECTIONS OF | 0 | 0 |
| LASER SYSTEMS | | | | |
| 11192 | 12-07 | DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER | 0 | 0 |
| SYSTEMS | | | | |
| 11193 | 12-08 | DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER | 0 | 0 |
| SYSTEMS | | | | |
| 11194 | 12-09 | DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER | 0 | 0 |
| SYSTEMS | | | | |
| 11195 | 12-10 | DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER | 0 | 0 |
| SYSTEMS | | | | |
| 11196 | 12-11 | DO YOU USE OR REFER TO ANGSTROMS (A) | 0 | 0 |
| 11197 | 12-12 | DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS | 0 | 0 |
| 11198 | 12-13 | DO YOU USE OR REFER TO GROUND STATE | 0 | 0 |
| 11199 | 12-14 | DO YOU USE OR REFER TO EXCITED STATE | 0 | 0 |
| 11200 | 12-15 | DO YOU USE OR REFER TO PACKET OF RADIATION | 0 | 0 |
| 11201 | 12-16 | DO YOU USE OR REFER TO PHOTONS | 0 | 0 |
| 11202 | 12-17 | DO YOU USE OR REFER TO SPONTANEOUS EMISSION | 3 | 3 |
| 11203 | 12-18 | DO YOU USE OR REFER TO STIMULATED EMISSION | 0 | 0 |
| 11204 | 12-19 | DO YOU USE OR REFER TO COHERENCE OR INCOHERENCE | 0 | 0 |
| 11205 | 12-20 | DO YOU USE OR REFER TO INVERSION LEVEL | 0 | 0 |
| 11206 | 12-21 | DO YOU USE OR REFER TO MONOCHROMATIC | 0 | 0 |
| 11207 | 12-22 | DO YOU WORK WITH ACTIVE MATERIALS | 0 | 0 |
| 11208 | 12-23 | DO YOU WORK WITH PUMPING SOURCES | 0 | 0 |
| 11209 | 12-24 | DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE) | 0 | 0 |
| MIRRORS | | | | |

PCT MRS RESPONDING 'YES' BY SELECTED GRPS

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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

| | | SPC SPC | |
|---------------|--|---------|-----|
| | | 076 | 077 |
| DY-TSK | | | |
| 11210 | 12-25 DO YOU WORK WITH HALF SILVERED (92% REFLECTIVE) | 0 | 0 |
| MIRRORS | | | |
| 11211 | 12-26 DO YOU WORK WITH HELICAL FLASHTUBES | 0 | 0 |
| 11212 | 12-27 DO YOU WORK WITH RUBY | 0 | 0 |
| 11213 | 12-28 DO YOU WORK WITH HELIUM-NEON | 0 | 0 |
| 11214 | 12-29 DO YOU WORK WITH HELIUM-XENON | 0 | 0 |
| 11215 | 12-30 DO YOU WORK WITH XENON | 0 | 0 |
| 11216 | 12-31 DO YOU WORK WITH CESIUM-HELIUM | 0 | 0 |
| 11217 | 12-32 DO YOU WORK WITH ARGON | 0 | 0 |
| 11218 | 12-33 DO YOU WORK WITH NEODYMIUM IN GLASS | 0 | 0 |
| 11219 | 12-34 DO YOU WORK WITH GALLIUM ARSENIDE | 0 | 0 |
| 11220 | 13-01 IN YOUR PRESENT JOB DO YOU WORK WITH DISPLAY TUBES, SUCH AS DIRECT VIEW STORAGE (DVS) OR MULTIPLE MODE STORAGE TUBES (MST) | 0 | 0 |
| DISPLAY TUBES | | | |
| 11221 | 13-02 DO YOU INSPECT DVS OR MST | 0 | 0 |
| 11222 | 13-03 DO YOU CLEAN DVS OR MST | 0 | 0 |
| 11223 | 13-04 DO YOU ADJUST OR CALIBRATE DVS OR MST | 0 | 0 |
| 11224 | 13-05 DO YOU OPERATE SYSTEMS THAT CONTAIN DVS OR MST | 0 | 0 |
| 11225 | 13-06 DO YOU TROUBLESHOOT DVS OR MST | 0 | 0 |
| CIRCUITS | | | |
| 11226 | 13-07 DO YOU REMOVE OR REPLACE DVS OR MST TUBES FROM MAJOR ASSEMBLIES OR UNITS | 0 | 0 |
| 11227 | 13-08 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME THE VARIOUS ELEMENTS OF DVS | 0 | 0 |
| 11228 | 13-09 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME THE VARIOUS ELEMENTS OF MST | 0 | 0 |
| 11229 | 13-10 DO YOU PERFORM TASKS ON FLOOD GUNS | 0 | 0 |
| 11230 | 13-11 DO YOU PERFORM TASKS ON WHITE GUNS | 0 | 0 |
| 11231 | 13-12 DO YOU PERFORM TASKS ON ATTACK GUNS | 0 | 0 |
| 11232 | 13-13 DO YOU PERFORM TASKS ON ERASE GUNS | 0 | 0 |
| 11233 | 13-14 DO YOU PERFORM TASKS ON STORAGE GRIDS | 0 | 0 |
| 11234 | 13-15 DO YOU PERFORM ANY PROGRAMMING | 0 | 0 |
| TASKS | | | |
| 11235 | 13-02 DO YOU USE OR REFER TO DECIMAL SYSTEMS | 0 | 0 |
| 11236 | 13-03 DO YOU USE OR REFER TO PROGRAMS | 0 | 0 |
| 11237 | 13-04 DO YOU USE OR REFER TO HEXIDECIMAL SYSTEMS | 0 | 0 |
| 11238 | 13-05 DO YOU USE OR REFER TO 8-8-2-1 SYSTEMS | 0 | 0 |
| 11239 | 13-06 DO YOU USE OR REFER TO FOUR SYSTEMS | 0 | 0 |
| 11240 | 13-07 DO YOU USE OR REFER TO BINARY SYSTEMS | 0 | 0 |
| 11241 | 13-08 DO YOU USE OR REFER TO TIME-SHARING | 0 | 0 |
| 11242 | 13-09 DO YOU USE OR REFER TO DATA WORDS | 0 | 0 |
| 11243 | 13-10 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS | 0 | 0 |
| 11244 | 13-11 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS | 0 | 0 |
| 11245 | 13-12 DO YOU USE OR REFER TO STEERING/INFORMATION | 0 | 0 |
| 11246 | 13-13 DO YOU USE OR REFER TO INFORMATION WORDS | 0 | 0 |
| 11247 | 13-14 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING | 0 | 0 |
| 11248 | 13-15 DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING | 0 | 0 |
| PROGRAMMING | | | |

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK

SPC SPC
076 077

| | | | |
|--|---|---|---------------------|
| U1249 U1-16 DO YOU PERFORM TASKS ON INPUT DEVICES | 0 | 0 | |
| U1250 U1-17 DO YOU PERFORM TASKS ON STORAGE DEVICES | 0 | 0 | |
| U1251 U1-18 DO YOU PERFORM TASKS ON ARITHMETIC SECTIONS | 0 | 0 | |
| U1252 U1-19 DO YOU PERFORM TASKS ON CONTROL SECTIONS | 0 | 0 | |
| U1253 U1-20 DO YOU PERFORM TASKS ON OUTPUT DEVICES | 0 | 0 | |
| U1254 U1-21 DO YOU PERFORM TASKS ON POWER SUPPLIES | 0 | 0 | |
| U1255 U2-01 DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND ATTENUATION | 0 | 0 | |
| U1256 U2-02 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN DECIBELS | 0 | 0 | |
| U1257 U2-03 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN DECIBELS | 0 | 0 | DB AND POWER RATIOS |
| U1258 U2-04 DUMMY TASK TO IDENTIFY INCUMBENTS WHO PERFORMED NO TASKS | 3 | 3 | |

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AIR FORCE OCCUPATIONAL MEASUREMENT CENTER LACKLAND A--ETC F/G 5/9
MISSILE PNEUDRAULIC REPAIRMAN CAREER LADDER AFSC 44250.(U)
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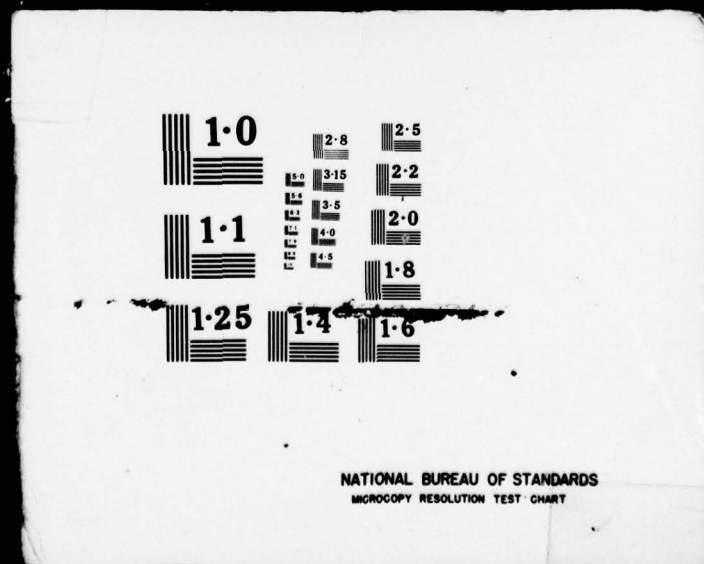
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